

1 UNITED STATES DISTRICT COURT
2 NORTHERN DISTRICT OF ILLINOIS EASTERN DIVISION

3 DOCKETED

4 BALLY MANUFACTURING
5 CORPORATION,

SEP 27 1979

6 PLAINTIFF,

7 VS.

NO. CIVIL ACTION
78 C-2246

8 D. GOTTLIEB & CO., AND
9 WILLIAMS ELECTRONICS, INC.,
AND ROCKWELL INTERNATIONAL
CORPORATION,

FILED

10 DEFENDANTS.

11 1979

12
13 DEPOSITION OF JOHN W. FOOTH, TAKEN ON BEHALF OF
14 PLAINTIFF, AT 3370 EAST MIRALOMA AVENUE, ANAHEIM, CALIFORNIA,
15 COMMENCING AT 1:00 P.M., WEDNESDAY, AUGUST 8, 1978, BEFORE
16 THERESA DE LAO, CSR NO. 3983, A NOTARY PUBLIC IN AND FOR THE
17 STATE OF CALIFORNIA, COUNTY OF ORANGE, PURSUANT TO NOTICE.
18

19 APPEARANCES:

20 FOR PLAINTIFF:

21 FITCH, EVEN & TABIN
22 ATTORNEYS AT LAW
23 BY: A. SIDNEY KATZ
DONALD L. WELSH
JEROLD B. SCHNAYER
135 SOUTH LA SALLE STREET
CHICAGO, ILLINOIS 60603

24 FOR DEFENDANT
25 ROCKWELL INTERNATIONAL,
26 D. GOTTLIEB & CO.:

27 ARNOLD, WHITE & DURKEE
28 ATTORNEYS AT LAW
BY: WAYNE HARDING
2100 TRANSCO TOWER
HOUSTON, TEXAS 77056

EXHIBIT A

A I DON'T UNDERSTAND THE QUESTION.

Q WHAT DON'T YOU UNDERSTAND ABOUT IT?

A DO YOU DISTINGUISH BETWEEN PROTOTYPES OR PRODUCTION?

I GUESS THAT'S THE POINT.

Q WAS THE PROTOTYPE EVER SOLD TO WILLIAMS?

A THE ANSWER IS YES.

Q WERE THERE EVER PRODUCTION UNITS SOLD TO WILLIAMS?

A NO.

Q DID YOU EVER WORK ON ANY OTHER PINBALL GAME DEVELOPMENTS OTHER THAN THIS ONE FOR WILLIAMS?

A YES.

Q WHAT WERE THOSE?

MR. HARDING: WHAT TIME FRAME, COUNSEL?

MR. KATZ: EVERY.

MR. HARDING: WE HAVE TAKEN THE POSITION, I BELIEVE, MR. KATZ, WHICH YOU ARE AWARE OF IN THIS LITIGATION; AND THAT POSITION IS THAT WE ARE YIELDING TESTIMONY AND DISCOVERY ON PINBALL GAME CONTROLLERS MANUFACTURED BY ROCKWELL WHICH PERTAIN TO THE STRUCTURE WHICH IS PRESENTLY ACCUSED BY BALLY IN THE PRESENT LITIGATION. OTHER STRUCTURES THAN THOSE, WE HAVE TAKEN THE POSITION ARE IRRELEVANT TO THIS LITIGATION AND DISCOVERY THEREON IS NOT LIKELY TO LEAD IN OUR VIEW TO DISCOVERABLE MATERIAL; SO THEREFORE I'M INSTRUCTING THIS WITNESS TO ANSWER YOUR QUESTION AS TO PINBALL GAME CONTROLLERS LEADING UP TO THE ACCUSED STRUCTURE.

MR. KATZ: WHAT DO YOU MEAN BY "THE ACCUSED STRUCTURE"?

MR. HARDING: I'VE MADE MY STATEMENT.

MR. KATZ: WE, OF COURSE, INDICATED BEFORE WE DISAGREE

WITH YOUR POSITION.

I THINK THERE WAS AN OUTSTANDING QUESTION. COULD
YOU READ IT BACK?

(RECORD READ.)

MR. HARDING: YOU MAY ANSWER NOW SUBJECT TO MY OBJECTION.

THE WITNESS: WHAT WAS THE QUESTION?

BY MR. KATZ:

Q WHAT WERE THOSE OTHER PINBALL GAME PROJECTS?

A GOTTLIEB DEVELOPMENT.

Q ANY OTHERS?

A YES.

Q WHAT WERE THOSE?

A THE BRUNSWICK THING.

(DISCUSSION OFF THE RECORD.)

MR. KATZ: LET THE RECORD SHOW THAT MR. HARDING CONFERRED
WITH THE WITNESS AFTER HE SAID "THE BRUNSWICK THING."

Q OTHER THAN THE BRUNSWICK THING WERE THERE ANY
OTHER PINBALL PROJECTS?

MR. HARDING: ONCE AGAIN I'M INSTRUCTING THE WITNESS
ACCORDING TO MY EARLIER INSTRUCTION.

THE WITNESS: YES.

BY MR. KATZ:

Q WHAT WERE THOSE?

A SEGA.

Q ANY OTHERS?

A SEGASA.

Q WAS THAT A SEPARATE DEVELOPMENT?

A YES.

Q ANY OTHERS?

A I DON'T RECALL.

Q WAS THERE ANY DEVELOPMENT PROGRAM FOR STEARN
ELECTRONICS THAT YOU RECALL?

A NO.

Q WHAT DID THE GOTTLIEB DEVELOPMENT INVOLVE IN
CONNECTION WITH THE WORK YOU WERE DOING?

A SIMILAR CONTROL SYSTEM BASED UPON PPS-4 DEVICES.

Q HOW ABOUT THE SEGA?

A THE SAME BASIC DESIGN. I DON'T REALLY KNOW HOW
TO ANSWER THAT QUESTION BECAUSE ALL I DID WAS A PROPOSAL ON IT.

Q WAS THE SAME TRUE ON THE SEGASA SYSTEMS?

A YES.

Q IT WAS JUST A PROPOSAL?

A YES.

Q WAS THE SAME TRUE OF THE BRUNSWICK PROJECT?

MR. HARDING: DON'T ANSWER THE QUESTION.

MR. KATZ: DO YOU INSTRUCT HIM NOT TO ANSWER?

MR. HARDING: ACCORDING TO MY EARLIER OBJECTION.

BY MR. KATZ:

Q DO YOU ACCEPT YOUR COUNSEL'S INSTRUCTION NOT TO
ANSWER THE QUESTION?

A YES.

Q CAN I CORRECTLY ASSUME THAT WHENEVER YOUR COUNSEL
INSTRUCTS YOU NOT TO ANSWER A QUESTION THAT YOU WON'T ANSWER
THE QUESTION?

A YES.

Q WAS THE BRUNSWICK MATTER OR THING THAT YOU

1 MENTIONED MERELY A PROPOSAL?

2 MR. HARDING: DON'T ANSWER THE QUESTION.

3 BY MR. KATZ:

4 Q WAS THIS BRUNSWICK MATTER OR DEVELOPMENT A
5 COMMERCIAL DEVELOPMENT?

6 MR. HARDING: DON'T ANSWER.

7 BY MR. KATZ:

8 Q DID IT INVOLVE PRODUCTION UNITS?

9 MR. HARDING: OBJECT TO THE QUESTION AS VAGUE AND
10 INDEFINITE. WHAT DOES "IT" REFER TO?

11 MR. KATZ: THE BRUNSWICK DEVELOPMENT.

12 MR. HARDING: WHAT ABOUT THE BRUNSWICK DEVELOPMENT?

13 BY MR. KATZ:

14 Q DID IT INVOLVE PRODUCTION UNITS?

15 MR. HARDING: DON'T ANSWER THE QUESTION.

16 BY MR. KATZ:

17 Q DO YOU KNOW WHETHER ROCKWELL SOLD PINBALL
18 CONTROLLER DEVICES TO BRUNSWICK BETWEEN JUNE OF '78 UNTIL AND
19 IN THE PERIOD TO JUNE OF 1979?

20 MR. HARDING: DON'T ANSWER THE QUESTION.

21 MR. KATZ, WITHOUT MY REPEATING MY EARLIER OBJECTION
22 I WILL MERELY NOTE THAT OUR POSITION WAS SET FORTH WELL IN
23 ADVANCE OF THIS PRESENT WEEK OF DEPOSITION, AND YOU CAME OUT
24 HERE KNOWING OF OUR POSITION AND THAT WE WERE NOT GOING TO
25 YIELD DISCOVERY ON THAT TOPIC; AND ACCORDINGLY I AM GOING TO
26 INSTRUCT THE WITNESS NOT TO ANSWER QUESTIONS CONCERNING ANY
27 BRUNSWICK DEVELOPMENT.
28

1 BY MR. KATZ:

2 Q IS THE PINBALL CONTROLLER DESIGN FOR BRUNSWICK
3 SIMILAR TO THAT THAT WAS DONE FOR GOTTLIEB IN ANY RESPECT?

4 MR. HARDING: DON'T ANSWER THE QUESTION.

5 BY MR. KATZ:

6 Q IS THE DESIGN THAT WAS DONE FOR BRUNSWICK
7 DISSIMILAR FROM THAT THAT WAS DONE FOR GOTTLIEB IN ANY
8 SIGNIFICANT RESPECT?

9 MR. HARDING: DON'T ANSWER.

10 BY MR. KATZ:

11 Q DID THE GOTTLIEB DEVELOPMENT EVER RESULT IN THE
12 SALE OF ANY PROTOTYPES TO GOTTLIEB OF PINBALL MACHINES THAT
13 WERE SOLID STATE CONTROLLED?

14 A YES.

15 MR. HARDING: WOULD YOU REPEAT THE LAST QUESTION?

16 (RECORD READ.)

17 BY MR. KATZ:

18 Q DID YOU WANT TO RECONSIDER YOUR ANSWER?

19 A YES. I DON'T UNDERSTAND THE QUESTION.

20 Q WHAT DON'T YOU UNDERSTAND ABOUT IT?

21 A WE DON'T MANUFACTURE PINBALL GAMES.

22 Q DO YOU MANUFACTURE PINBALL MACHINE CONTROLLERS?

23 A YES, CONSISTING OF A SET OF CIRCUIT BOARDS.

24 Q WHAT ARE THOSE; WHAT IS THE SET OF CIRCUIT BOARDS
25 THAT YOU REFER TO?

26 A YOU WANT THE NAMES?

27 Q YES, IF YOU KNOW THEM.

28 A A CONTROL BOARD, A DRIVER BOARD, DISPLAY BOARDS.

1 PAPERS THAT YOU MAY FILE IN SUPPORT OF THE MOTION.

2 AS I UNDERSTAND IT ALSO THE BRIEFING SCHEDULE
3 CALLS FOR YOUR BRIEF IN SUPPORT OF THE MOTION TO BE FILED BY
4 AUGUST 16TH. OUR REPLY BRIEF IS TO BE FILED BY AUGUST 27.
5 SINCE THE AFFIDAVITS AND OTHER MATTERS ARE REFERRED TO IN THE
6 MOTION IT IS OUR POSITION THAT IT IS APPROPRIATE FOR US TO
7 RECEIVE COPIES AS SOON AS IT IS CONVENIENT FOR YOU TO FURNISH
8 THEM, AND SINCE THEY'RE HERE IN MR. HAMANN'S OFFICE IT SHOULD
9 BE POSSIBLE TO FURNISH US WITH SUCH COPIES EVEN YET TODAY.

10 MR. HARDING: YOUR REQUEST IS NOTED AND I SHALL ENDEAVOR
11 TO RESPOND TO IT AS SOON AS I POSSIBLY CAN.

12 MR. WELSH: IF IT'S POSSIBLE TO LOCATE MR. LYNCH AT
13 THIS TIME AND GET WHATEVER AUTHORITY YOU NEED FROM HIM, I THINK
14 WE COULD RECESS FOR THAT PURPOSE.

15 MR. HARDING: I HAVE A CALL IN TO MR. LYNCH.
16 BY MR. KATZ:

17 Q MR. FOOTH, YOU TESTIFIED THAT YOU SPOKE TO ALLEN
18 EDWALL AT GOTTLIEB LAST MONDAY. WHAT WAS THE SUBSTANCE OF THAT
19 CONVERSATION?

20 MR. HARDING: MR. KATZ, MAY I INQUIRE AS TO THE RELEVANCY
21 OF THAT QUESTION?

22 MR. KATZ: IT'S RELEVANT TO A NUMBER OF THINGS. IT IS
23 CERTAINLY CALCULATED TO LEAD TO ADMISSIBLE EVIDENCE ON THE
24 QUESTION OF AT LEAST THE ISSUES RAISED BY OUR MOTION OF
25 CONTRIBUTORY INFRINGEMENT AND INDUCEMENT.

26 MR. HARDING: I CANNOT SEE HOW A CONVERSATION TAKING
27 PLACE SEVERAL MONTHS AFTER THE COMPLAINT WAS FILED COULD BEAR
28 ANY RELEVANCY WHATSOEVER AS OF THE DATE OF THE FILING OF THE

1 COMPLAINT.

2 MR. KATZ: IT SHOWS A CONTINUING PATTERN OF DEALING WITH
3 GOTTLIEB, AND OF COURSE THE CONDUCT WHICH HAS AS ITS GOAL THE
4 RESULT OF AIDING AND ABETTING THE INFRINGEMENT BY GOTTLIEB.

5 I'LL ALSO ASK HIM FOR CONVERSATIONS BEFORE THE
6 AMENDED COMPLAINT WAS FILED AGAINST ROCKWELL, BUT I HAVEN'T
7 GOTTEN TO THAT YET. I WILL GET TO THE AREA BETWEEN THE DATE
8 THAT THE PATENT ISSUED AND THE DATE SUIT WAS FILED AGAINST
9 ROCKWELL.

10 MR. HARDING: BEFORE I INSTRUCT HIM NOT TO ANSWER PERHAPS
11 WE BETTER TAKE A BREAK, AND I'LL SEE IF I CAN MAKE A PHONE CALL.

12 (BRIEF RECESS.)

13 MR. HARDING: I HAVE MADE AN ATTEMPT TO RESPOND TO YOUR
14 EARLIER REQUEST CONCERNING THE AFFIDAVITS AND CONCERNING
15 DISCOVERY INTO THE PRESENT RELATIONSHIP BETWEEN THE PARTIES,
16 ROCKWELL AND GOTTLIEB, AND HAVE BEEN UNABLE TODAY TO GIVE YOU
17 A RESPONSE. I WILL GIVE YOU SOME SORT OF A RESPONSE TOMORROW
18 MORNING, BUT FOR THE REMAINDER OF THE DAY I WOULD ASK THAT YOU
19 AVOID THIS APPARENT CONTROVERSY OR ISSUE BETWEEN US AND GO
20 INTO THE BACKGROUND DEVELOPMENT OF THE CONTROLLER, AND TO THE
21 EXTENT THAT YOU CONTINUE TO ASK QUESTIONS ABOUT THE AFFIDAVITS
22 AND ABOUT THE PRESENT BUSINESS RELATIONSHIP, WE HAVE ALSO HAD
23 AN UNDERSTANDING OF POSITIONS WELL PRIOR TO THIS WEEK. I WILL
24 INSTRUCT HIM NOT TO ANSWER FOR TODAY ONLY UNTIL I CAN GET AN
25 ANSWER TO YOUR REQUEST.

26 MR. WELSH: DO I UNDERSTAND YOU CORRECTLY THAT YOUR
27 CONCERN IS ABOUT THE PRESENT RELATIONSHIP FROM THE DATE OF THE
28 COMPLAINT AGAINST ROCKWELL UNTIL TODAY, OR ARE YOU ALSO GOING

TO OBJECT TO QUESTIONS INVOLVING THE RELATIONSHIP BETWEEN THE
TWO PRIOR TO THE DATE OF THE COMPLAINT?

MR. HARDING: OUR POSITION, I THINK, HAS BEEN UP TO THIS
POINT FAIRLY CLEAR THAT WE ARE OBJECTING TO DISCOVERY DIRECTED
TO THE BUSINESS AND FINANCIAL RELATIONSHIP BETWEEN THE TWO
PARTIES, AND TO THAT EXTENT IT'S BEFORE THE FILING OF THE
AMENDED COMPLAINT ALSO.

MR. WELSH: MY UNDERSTANDING IN THAT REGARD WAS THAT
YOUR OBJECTIONS WERE TO ACTUAL FIGURES OF PRODUCTION COST; IS
THAT INCORRECT?

MR. HARDING: YES. I THINK BUSINESS PHILOSOPHIES OF EACH
OF THE RESPECTIVE COMPANIES AND HOW THEY CONDUCT THIS BUSINESS
BETWEEN THE TWO ALSO FALL WITHIN OUR OBJECTION.

MR. WELSH: THAT INCLUDES CONTACTS BETWEEN THE PARTIES
AND SUBJECTS OF COMMUNICATIONS AND SO FORTH; IS THAT CORRECT?

MR. HARDING: WITHOUT LIMIT OF TIME.

MR. WELSH: FROM THE TIME THAT THE GOTTLIEB CONTROLLER
WENT INTO PRODUCTION UNTIL THE PRESENT TIME?

MR. HARDING: I THINK THAT HAS BEEN THE CASE UNTIL THE
CONTRIBUTORY INFRINGEMENT INDUCEMENT ISSUE HAS ENTERED THE
PICTURE, AND I'M NOT PREPARED TODAY. TOMORROW MORNING I WILL
BE PREPARED HOPEFULLY TO RESPOND.

MR. WELSH: I DID WANT TO ASK YOU TO STATE ON THE RECORD
THE STATEMENT YOU MADE TO US EARLIER TODAY REGARDING PARAGRAPH
1 OF THE MOTION WITH RESPECT TO VENUE.

MR. HARDING: IT IS MY UNDERSTANDING THAT THE DEFENDANT
ROCKWELL INTENDS TO WAIVE ITS VENUE OBJECTION. IT HAS NOT
FORMALLY DONE SO YET.

1 MR. WELSH: COULD YOU, WHEN YOU SPEAK TO MR. LYNCH,
2 DETERMINE THAT SO THAT YOU CAN TAKE A FIRM POSITION?

3 MR. HARDING: YES.

4 MR. WELSH: GOOD. I MIGHT NOTE THAT YOU DID, AS I
5 UNDERSTOOD IT IN THE CONVERSATION WITH YOU AND MR. LYNCH LAST
6 FRIDAY REGARDING THE DOCUMENT PRODUCTION, STATE THAT YOU WOULD
7 PRODUCE COMMERCIAL DOCUMENTS UP TO THE TIME THAT ROCKWELL WAS
8 STARTING THE SUIT SO FAR AS THE GOTTLIEB CONTROLLER WAS
9 CONCERNED.

10 MR. HARDING: DO YOU MEAN PUBLISHED OR COMMERCIAL
11 DOCUMENTS?

12 MR. WELSH: I ONLY MADE A NOTE OF WHAT WAS SAID BY YOU
13 OR MR. LYNCH IN OUR CONVERSATION, AND I THINK MR. LYNCH USED
14 THE TERM "COMMERCIAL DOCUMENT." AND ALTHOUGH THERE WERE A FEW
15 DOCUMENTS DATED SUBSEQUENT TO THE FILING OF THE SUIT, THERE ARE
16 VERY FEW SUCH DOCUMENTS INCLUDING WHATEVER -- I DIDN'T FIND ANY
17 THAT WOULD SEEM TO ME TO FALL WITHIN THE CATEGORY OF COMMERCIAL
18 DOCUMENTS.

19 MR. HARDING: IT WAS MY UNDERSTANDING, MR. WELSH, THAT
20 YOU HAD AN EARLIER CONVERSATION WITH MR. LYNCH WHERE A POSITION
21 REPRESENTATION WAS MADE, AND THEN A SECOND CONVERSATION
22 INVOLVING MR. LYNCH AND MYSELF AND YOU WHEREBY THE POSITION
23 WAS THAT WE WERE GOING TO PROVIDE A SET OF DRAWINGS ON THE
24 COMMERCIAL EMBODIMENT.

25 AND TO THE EXTENT THAT THE REQUEST CALLED FOR MORE
26 THAN THAT WE WERE GOING TO OBJECT OR DID OBJECT, BUT WE WERE
27 TO GIVE YOU DRAWINGS OF THE COMMERCIAL CONTROLLER.

28 MR. WELSH: PERHAPS WE WON'T HAVE TO GO INTO THAT

DEPENDING ON WHAT YOUR CONVERSATION WITH MR. LYNCH IS.

2 MR. KATZ: I THINK I HAVE AN OUTSTANDING QUESTION. I'LL
3 POSE IT AGAIN.

4 MR. HARDING: IF YOU'RE GOING TO ASK THE SAME QUESTIONS
5 PERHAPS WE OUGHT TO HAVE THE REPORTER READ BACK MY EARLIER
6 STATEMENT WHICH OBJECTED NOT ONLY TO THE AFFIDAVITS BUT TO
7 QUESTIONS RELATING TO THE PRESENT RELATIONSHIP BETWEEN THE TWO
8 PARTIES.

9 MR. KATZ: MY QUESTION DID GO TO THE SUBSTANCE OF THE
10 CONVERSATION LAST MONDAY WITH ALLEN EDWALL, BETWEEN THE WITNESS
11 AND ALLEN EDWALL. AS I UNDERSTOOD YOU WOULD OBJECT TO THAT?

12 MR. HARDING: YES, AS I EXPLAINED IN MY OBJECTION, AND
13 I'M REQUESTING THAT YOU DEFER THAT LINE OF QUESTIONING UNTIL
14 TOMORROW. I'M SURE YOU HAVE AN AMPLE SUPPLY OF QUESTIONS
15 CONCERNING THE DEVELOPMENT HISTORY OF THE DEVICE.

16 BY MR. KATZ:

17 Q IN CONNECTION WITH THE KEIPER HEALTH MACHINE
18 PROJECT, MR. FOOTH, DID YOU EVER HAVE ANY DISCUSSIONS WITH
19 MR. HERENBERG CONCERNING THE DESIGN OF THE KEIPER HEALTH
20 MACHINE CONTROL SYSTEM?

21 A I DON'T RECALL.

22 Q WERE YOU FAMILIAR WITH HOW THAT SYSTEM WAS BUILT?

23 A FAMILIAR -- I STILL DON'T UNDERSTAND THE QUESTION.

24 Q DID YOU KNOW AT THE TIME YOU WERE WORKING ON THAT
25 PROJECT HOW THE SYSTEM WAS CONSTRUCTED, WHAT COMPONENTS IT USED
26 AND SO ON?

27 A YES.

28 Q AND YOU MENTIONED THAT IT USED A PPS-4

Q IN THIS EXAMPLE THAT OTHER CHIP IS THE A1706; IS
2 THAT RIGHT?

3 A YES.

4 Q IS THERE ANY OTHER DESIGNATION FOR THIS A1706?

5 A I DON'T KNOW.

6 Q ARE THERE SPECIFIC CHIPS THAT HAVE TO BE USED WITH
7 THE MICROPROCESSOR CHIP?

8 A YES. THE 1706 IS A UNIQUELY-COATED CHIP.

9 Q TO BE COMPATIBLE WITH THE MICROPROCESSOR?

10 A YES.

11 Q AND IT CONTAINS THE ROM FUNCTION RAM AND INPUT
12 AND OUTPUT PORTS?

13 A IT CONTAINS THE PROGRAM MEMORY FOR THE PARTICULAR
14 APPLICATION. IT'S A UNIQUE SET OF CODES. THE A1706 IS UNIQUE
15 BY ITSELF.

16 Q IS THAT AN OFF-THE-SHELF ITEM ON A1706? COULD
17 SOMEONE GO IN AND BUY IT FROM ROCKWELL?

18 A I DON'T KNOW.

↓ 19 MR. KATZ: YESTERDAY, MR. HARDING, YOU REQUESTED THAT
20 WE DEFER THE EXAMINATION IN CERTAIN AREAS CONCERNING THE
21 RELATIONSHIP BETWEEN ROCKWELL AND GOTTLIEB DURING CERTAIN TIME
22 PERIODS UNTIL THIS MORNING WHEN YOU'VE HAD AN OPPORTUNITY TO
23 CONFER WITH MR. LYNCH AND GIVE US YOUR POSITION WITH RESPECT
24 TO THAT; AND ALSO I BELIEVE WE HAD REQUESTED AFFIDAVITS AND
25 OTHER MATERIALS WHICH WERE REFERRED TO IN A MOTION THAT WAS
26 RECENTLY FILED TO DISMISS ON BEHALF OF ROCKWELL INTERNATIONAL.

27 ALSO I BELIEVE THERE WAS A QUESTION ABOUT WHETHER
28 WE WOULD BE PERMITTED TO INQUIRE WITH THE WITNESS AND OBTAIN

TESTIMONY CONCERNING EVENTS AFTER THE SUIT WAS FILED, AND
2 THE PRODUCTION OF DOCUMENTS RELATING TO THE RELATIONSHIP
3 BETWEEN GOTTLIEB AND ROCKWELL DURING THE PERIOD AFTER THE SUIT
4 WAS FILED. ALSO QUESTIONS PARTICULARLY DIRECTED TO BRUNSWICK
5 AND THE RELATIONSHIP BETWEEN GOTTLIEB AND BRUNSWICK CONCERNING
6 THE PINBALL MACHINE CONTROL SYSTEM.

7 HAVE YOU CHECKED INTO THAT?

8 MR. HARDING: BEFORE I RESPOND, DO YOU HAVE A COPY OF
9 THE MOTION THAT WAS FILED? I HAVE YET TO SEE IT AND I CAN --

10 MR. KATZ: I'M SURE WE DO.

11 MR. HARDING: YES. THE FIRST THING I THINK I INDICATED
12 I WOULD RESPOND TO IS THE VENUE PLEADING, AND I HAVE BEEN
13 AUTHORIZED TO STATE THAT ROCKWELL INTERNATIONAL IS WAIVING THE
14 VENUE PLEADING, WHICH IS PARAGRAPH 1 OF THE MOTION.

15 AS TO YOUR REQUEST FOR AFFIDAVITS, OUR POSITION IS
16 THAT THE JUDGE HAS SET UP A BRIEFING SCHEDULE IN WHICH TO
17 PROVIDE DOCUMENTARY SUPPORT FOR THE MOTIONS, HOWEVER, IN LIGHT
18 OF YOUR REQUEST OF YESTERDAY THAT YOU BE GRANTED THE OPPORTUNITY
19 TO DEPOSE MR. FOOTH ON ANY AFFIDAVIT OR THE LIKE THAT MAY STEM
20 FROM HIM WHILE YOU'RE HERE IN CALIFORNIA, WE ARE GOING TO
21 ACCEDE TO THAT REQUEST; AND I AM HANDING YOU AN UNSIGNED
22 DOCUMENT BEARING A SIGNATURE LINE FOR MR. FOOTH AND WILL ALLOW
23 YOU TO INTERROGATE ON THAT DOCUMENT.

24 AS TO YOUR OTHER TOPICS OUR POSITION REMAINS THE
25 SAME THAT IT HAS BEEN THAT THE RELATIONSHIP BETWEEN DEFENDANTS
26 GOTTLIEB AND ROCKWELL IS IRRELEVANT TO THE PRESENT PROCEEDINGS,
27 AND ESPECIALLY SINCE THE DOCUMENTS THAT YOU HAVE REQUESTED HAVE
28 NOT BEEN COLLECTED AND ARE NOT PRESENTLY AVAILABLE FOR

SECTION. WE ARE GOING TO REMAIN STEADFAST IN OUR POSITION
2 THAT DISCOVERY IS NOT PROPER AS TO THE RELATIONSHIP BETWEEN
3 GOTTLIEB AND ROCKWELL. IT'S OUR POSITION THAT CONTRIBUTORY
4 INFRINGEMENT AND INDUCEMENT IS GOVERNED BY 35 USC SECTION 271B
5 AND "C", AND I CAN READ THOSE IF YOU WOULD LIKE.

6 MR. KATZ: SURE.

7 MR. HARDING: SUBSECTION "C" PERTAINS TO CONTRIBUTORY
8 INFRINGEMENT AND READS AS FOLLOWS:

9 "WHOEVER SELLS A COMPONENT OF A
10 PATENTED MACHINE, MANUFACTURED COMBINA-
11 TION OR COMPOSITION OR A MATERIAL OR
12 APPARATUS FOR USE IN PRACTICING A
13 PATENTED PROCESS CONSTITUTING A MATERIAL
14 PART OF THE INVENTION, KNOWING THE SAME
15 IS TO BE ESPECIALLY MADE OR ESPECIALLY
16 ADAPTED FOR USE IN AN INFRINGEMENT OF SUCH
17 PATENT AND NOT A STAPLE, ARTICLE OR
18 COMMODITY OF COMMERCE SUITABLE FOR
19 SUBSTANTIAL NONINFRINGING USE, SHALL BE
20 LIABLE AS A CONTRIBUTORY INFRINGER."

21 SUBSECTION "B" STATES:

22 "WHOEVER ACTIVELY INDUCES INFRINGE-
23 MENT OF A PATENT SHALL BE LIABLE AS AN
24 INFRINGER."

25 IT'S OUR POSITION THAT 35 USC DOES NOT PERTAIN TO
26 THE RELATIONSHIP BETWEEN THE PARTIES. IT PERTAINS TO THE
27 PARTICULAR STRUCTURE AND WHETHER THAT STRUCTURE IS ONE, A
28 MATERIAL PART OF THE INVENTION, AND TWO, WHETHER IT'S A STAPLE,

ARTICLE OR COMMODITY OF COMMERCE SUITABLE FOR SUBSTANTIAL NON-
INFRINGING USE. AND WE'RE NOT GOING TO VOLUNTARILY YIELD
DISCOVERY ON A GENERAL BASIS FOR YOU TO GO ON TO A FISHING
EXPEDITION OF ALL COMMUNICATIONS BETWEEN THE PARTIES WITHOUT ANY
BASIS WHATSOEVER FOR YOUR DISCOVERY.

SUBSECTION "B" REFERS TO ACTIVE INDUCEMENT. IT'S
OUR POSITION THAT IF THERE IS NO CONTRIBUTORY INFRINGEMENT IN
THIS CASE, THERE CAN BE NO INDUCEMENT IN THIS CASE. AND TO
THE EXTENT THAT YOU DON'T DEFINE PARTICULAR TYPES OF DOCUMENTS
AND DISCOVERY THAT YOU WISH TO DISCOVER, I CAN'T RESPOND ANY
FURTHER. BUT OUR POSITION IS THE SAME, WHICH I BELIEVE WE HAVE
MADE KNOWN PRIOR TO YOUR TRIP TO CALIFORNIA. THAT WE WOULD NOT
BE YIELDING DISCOVERY AS TO THE RELATIONSHIP BETWEEN THE
PARTIES.

MR. KATZ: I THINK THE DOCUMENTS WERE SPECIFICALLY
REQUESTED UNDER PARAGRAPHS 23 AND 24 OF THE DOCUMENT REQUEST
WHICH WAS ALSO PART OF THE SUBPOENA DUCES TECUM, THAT WAS ALSO
PREVIOUSLY REQUESTED BY ROCKWELL UNDER RULE 34, THAT IS
QUESTION 23. IT STATES:

"ALL CORRESPONDENCE BETWEEN
DEFENDANT AND ANYONE ELSE CONCERNING THE
DESIGN, DEVELOPMENT OR MANUFACTURE OF
SOLID STATE PINBALL MACHINES OR SOLID
STATE ELECTRONIC PINBALL MACHINE
COMPONENTS."

THIS CERTAINLY WOULD INCLUDE CORRESPONDENCE BETWEEN
DEFENDANT GOTTLIEB AND BRUNSWICK OR ANYONE ELSE CONCERNING THE
DESIGN, DEVELOPMENT OR MANUFACTURE OF PINBALL MACHINE

ROLLERS.

"B" REQUESTS ALL NOTES, MEMORANDA, SKETCHES, DRAWINGS AND OTHER DOCUMENTS REFERRING OR RELATING TO THE DESIGN, DEVELOPMENT OR MANUFACTURE TO WHICH REFERENCE IS MADE IN PART "A" OF THIS REQUEST. THEN CONTINUING IN REQUEST 24A, IT CALLS FOR ALL CORRESPONDENCE BETWEEN DEFENDANT AND D. GOTTLIEB & COMPANY, INCLUDING CORRESPONDENCE BETWEEN THEIR RESPECTIVE ATTORNEYS RELATING TO THREE DIFFERENT AREAS.

"1, SOLID STATE ELECTRONIC PINBALL MACHINES; 2, SOLID STATE PINBALL MACHINE COMPONENTS; AND 3, THIS ACTION OR THE PATENT ENSUED."

PART "B" OF THAT REQUEST CALLS FOR ALL THE NOTES AND OTHER DOCUMENTS REFERRING OR RELATING TO THE SUBJECT MATTERS OF THE CORRESPONDENCE WHICH WAS REFERRED TO IN PART "A" OF REQUEST 24. SO I DO THINK THAT WE HAVE MADE THAT REQUEST, AND I DO THINK THAT IT IS HIGHLY RELEVANT TO THE AREA OF INQUIRY CONCERNING PARTICULARLY THE DATES BETWEEN THE PATENT, THE DATE THE PATENT WAS GRANTED AND THE DATE THAT ACTION WAS BROUGHT AGAINST ROCKWELL.

I THINK THAT PERIOD IS VERY RELEVANT. IT'S A PERIOD OF GREAT CONCERN. THE PATENT WAS ISSUED TO PLAINTIFF, AND I THINK THAT THE TIME BETWEEN THE TIME THE PATENT WAS ISSUED AND THE DATE THAT THE AMENDED COMPLAINT WAS FILED AGAINST ROCKWELL AND THEIR KNOWLEDGE CONCERNING INFRINGEMENT BY ANYONE, THEIR KNOWLEDGE OF THE PATENT AND THEIR ACTIONS IN RESPECT TO THE ISSUE OF WHETHER THERE WAS KNOWLEDGE THAT THE DEVICES THEY SOLD WERE ESPECIALLY ADAPTED FOR USE IN AN INFRINGING SYSTEM,

IS ONE AREA UNDER SECTION 271C OF THE PATENT STATUTES,
AND ALSO THE QUESTION OR THE ISSUE OF WHETHER OR NOT THERE
WAS ANY SUBSTANTIAL NONINFRINGING USE OF THE PINBALL CONTROLLER
SYSTEM.

I THINK THESE ARE QUESTIONS THAT ARE HIGHLY
RELEVANT TO THE MOTION THAT YOU RAISE TO DISMISS WHICH WILL BE
TREATED APPARENTLY AS A MOTION FOR SUMMARY JUDGMENT.

MR. HARDING: WE ARE STILL COMPLETELY IN THE DARK AS
TO WHAT SPECIFIC DOCUMENTS, IF ANY, THAT YOU ARE LOOKING FOR.

MR. KATZ: THESE DOCUMENTS THAT WE REQUESTED.

MR. HARDING: BUT THOSE ARE JUST GENERAL TOPICS.

MR. KATZ: THEY ALL RELATE TO PINBALL MACHINE CONTROLLERS,
AND I THINK SO LONG AS IT IS SOLID STATE PINBALL MACHINE
CONTROLLERS, I THINK IT'S HIGHLY RELEVANT.

MR. HARDING: IT INCLUDES CONTRACTS, INDEMNITY AGREE-
MENTS, THINGS THAT JUDGE GRADY HAS ALREADY RULED UPON WHICH
WOULD BE DEFERRED UNTIL A LATER DATE.

MR. KATZ: BUT YOU HAVEN'T PRODUCED ANYTHING THAT FALLS
WITHIN THAT REQUEST.

MR. HARDING: AND WE ARE OBJECTING BECAUSE WE BELIEVE
THAT IT IS IRRELEVANT AND NOT LIKELY TO LEAD TO DISCOVERY OF
ADMISSIBLE EVIDENCE.

MR. KATZ: IF SOME OF IT WOULD BE RELEVANT AND ADMISSIBLE
THEN THE REQUEST CERTAINLY IS REASONABLY CALCULATED TO LEAD TO
ADMISSIBLE EVIDENCE.

MR. HARDING: UNTIL YOU IDENTIFY DOCUMENTS SPECIFICALLY
THAT YOU'RE REFERRING TO --

MR. KATZ: OF COURSE WE CAN'T DO THAT. WE HAVEN'T SEEN

THE DOCUMENTS. THE PURPOSE OF DISCOVERY IS TO BRING THOSE
DOCUMENTS FORWARD, AND THEN I THINK WE COULD DETERMINE WHAT
DOCUMENTS THERE WERE AND WHAT WAS RELEVANT. I THINK THEY WOULD
BE RELEVANT AND ALSO ADMISSIBLE.

MR. HARDING: TO THE EXTENT THAT YOU IDENTIFIED CERTAIN
DOCUMENTS THAT YOU THINK ARE RELEVANT TO THE INDUCEMENT AND
CONTRIBUTORY INFRINGEMENT, AND TO THE EXTENT THAT YOU WILL AGREE
THAT THE DOCUMENTS WHICH ARE COUNTERPART TO THE RELATIONSHIP
BETWEEN MOTOROLA AND BALLY ARE EQUALLY RELEVANT TO SHOW WHAT
STANDARD MARKETING PROCEDURES, STANDARD BUSINESS PROCEDURES
ARE, AND YOU WILL AGREE TO PRODUCE THOSE DOCUMENTS TO DEFENDANTS
ROCKWELL AND GOTTLIEB, THEN WE WILL SEEK TO REQUEST PERMISSION
FROM OUR CLIENTS TO RECIPROCATE.

MR. WELSH: WHAT RELEVANCE DO YOU ATTRIBUTE TO ANY
COMMUNICATIONS BETWEEN BALLY AND MOTOROLA?

MR. HARDING: WHATEVER RELEVANCE YOU INDICATE THERE TO
BE BETWEEN ROCKWELL AND GOTTLIEB. FOR EXAMPLE, IF YOU SAY
CONTRACTS OR PRICING ARE RELEVANT, THEN I THINK IT'S RELEVANT
BETWEEN BALLY AND MOTOROLA TO SHOW THAT THE ROCKWELL CONTRACT
IS A TYPICAL STANDARD OPERATING PROCEDURE BETWEEN SIMILARLY
SITUATED COMPANIES.

MR. KATZ: I DON'T KNOW IF THOSE WERE EVER REQUESTED.
IT'S THE FIRST I'VE EVER HEARD OF IT.

MR. HARDING: IT'S BECAUSE OUR POSITION IS THAT THOSE
DOCUMENTS ARE NOT RELEVANT, BUT TO THE EXTENT THAT YOU ASSERT
THEY'RE RELEVANT HERE, THEN WE REQUEST THEM LIKEWISE.

MR. KATZ: BUT THE PARTIES ARE IN DIFFERENT POSITIONS.
THE PLAINTIFF BALLY IS THE OWNER OF A PATENT ASSERTING A CHARGE

CONTRIBUTORY AND INDUCED INFRINGEMENT AGAINST ROCKWELL

INTERNATIONAL, AND ROCKWELL INTERNATIONAL IS IN A POSITION OF
BEING CHARGED WITH SELLING PARTICULAR PRODUCTS WHICH ARE THE
BASIS FOR THE CONTRIBUTORY INFRINGEMENT CHARGE.

WHAT'S RELEVANT WITH RESPECT TO THE OWNER OF THE
PATENT WOULDN'T NECESSARILY BE RELEVANT WITH RESPECT TO THE
QUESTIONS RAISED BY DOCUMENT PRODUCTION CONCERNING THE DEFENDANT
IN THE CASE.

MR. HARDING: TO THE EXTENT THAT I SAID THAT THERE'S
RELEVANCE TO SHOW WHAT CONTRACTS OR STANDARD DOCUMENTS ARE IN
THE INDUSTRY BETWEEN SIMILAR COMPANIES.

MR. KATZ: IT'S YOUR POSITION THAT YOU'RE NOT GOING TO
PRODUCE ANY MORE DOCUMENTS?

MR. HARDING: UNDER THE PRESENT SITUATION, YES. AND WE'RE
NOT GOING TO ALLOW TESTIMONY FROM THIS WITNESS IN THIS AREA
SIMILARLY UNTIL THE JUDGE HAS THE OPPORTUNITY TO RULE WHICH
SIDE IS PROPER. WE DO BELIEVE THAT YOU HAVE UNDERSTOOD FOR
MANY, MANY MONTHS THAT THE COMMUNICATIONS BETWEEN ROCKWELL AND
GOTTLIEB ARE NOT GOING TO BE PRODUCED IN THIS LITIGATION.

MR. KATZ: THAT'S NOT TRUE.

MR. HARDING: AND SECOND OF ALL THE DOCUMENTS ARE NOT
AVAILABLE TO PRODUCE ANYWAY THIS WEEK.

MR. WELSH: BUT THE WITNESS IS AVAILABLE TO ANSWER
QUESTIONS WITH RESPECT TO THE SUBJECT MATTER WHICH IS RELEVANT
TO THE ISSUE OF INDUCEMENT, AND THAT IS THE CONTACTS WHICH HE
HAS HAD WITH GOTTLIEB SINCE THE SUIT WAS FILED.

MR. HARDING: IT'S OUR POSITION IN THAT VEIN, MR. WELSH,
THAT CONTROLLERS, PRODUCTION CONTROLLERS, THAT DESIGN WAS FIXED

AND WERE ALL SOLD BEGINNING IN 1977 WELL IN ADVANCE OF ANY
PATENT ISSUANCE.

AND UNDER THOSE CIRCUMSTANCES THERE CAN BE NO
INDUCEMENT. A MERE MANUFACTURING CONTRACT IS NOT SUFFICIENT.

MR. WELSH: IT'S YOUR POSITION THAT THERE IS NO INFRINGE-
MENT SUBSEQUENT TO THE ISSUANCE OF THE PATENT BY GOTTLIEB?

MR. HARDING: OF COURSE. THAT'S GOTTLIEB AND ROCKWELL'S
POSITION THAT THERE IS NO INFRINGEMENT AND THE PATENT IS
INVALID.

MR. WELSH: AND IT IS YOUR POSITION THAT -- I DON'T
UNDERSTAND YOUR POSITION THAT THERE CAN'T BE INDUCEMENT
SUBSEQUENT TO THE ISSUANCE OF THE PATENT BY ROCKWELL BECAUSE
THE DESIGN WAS COMPLETED AND SOME WERE SOLD IN 1977.

MR. HARDING: WELL --

MR. WELSH: THAT'S THE BASIS. FOR THOSE REASONS THERE
CAN BE NO INDUCEMENT OF INFRINGEMENT AFTER THE PATENT ISSUED?

MR. HARDING: THAT IS A BASIS, YES. AND WE BELIEVE THAT
WE HAVE A LAW TO SUPPORT THAT POSITION.

MR. WELSH: AND YOU'RE BLOCKING OUR DISCOVERY WITH
RESPECT TO THAT ON THE BASIS OF YOUR INTERPRETATION OF THE LAW;
IS THAT CORRECT?

MR. HARDING: AND UNDER THE PRESENT SITUATION OF
UNAVAILABILITY OF DOCUMENTS AND OF THE LACK OF PARTICULARITY
OF QUESTIONS WHICH HAVE BEEN DIRECTED TO THE WITNESS AS TO THE
RELATIONSHIP BETWEEN THE PARTIES. TO THE EXTENT THAT YOU ASK
QUESTIONS OF THIS WITNESS GOING TO TECHNICAL CHANGES IN THE
PRODUCT BETWEEN COMPLETION OF THE ENGINEERING WORK AND THE
PRODUCTION WORK, PAST ISSUANCE OF THE PATENT, AND TO THE EXTENT

YOU WANT THAT, THEN WE WILL LIKEWISE REQUEST THE SAME
DEGREE OF DETAIL FROM BALLY TO SHOW WHAT STANDARD OPERATING
PROCEDURES ARE IN PRODUCTION CONTRACTS AND PRODUCTION CHANGES
IN PRODUCTS IN PRODUCTION.

MR. WELSH: WOULD YOU READ BACK THE LAST PORTION OF THAT
STATEMENT?

(RECORD READ.)

MR. HARDING: IF YOU WILL AGREE TO PRODUCE THAT ON
BALLY'S PART, THEN I WILL SEEK TO GET AUTHORIZATION TO PRODUCE
THAT FROM ROCKWELL AND GOTTLIEB'S PART.

MR. KATZ: IF WE AGREED TO THAT RIGHT NOW WOULD YOU LET
US GET INTO IT RIGHT NOW WITH THIS WITNESS?

MR. HARDING: I WILL SEEK AUTHORIZATION TO DO THAT IF
YOU WILL AGREE THAT ALL CHANGES TO THE BALLY PRODUCT LIKEWISE
WILL BE MADE AVAILABLE TO US.

MR. KATZ: OKAY.

MR. HARDING: LET'S TAKE A BREAK.

(BRIEF RECESS.)

(PLAINTIFF'S EXHIBIT 45 WAS MARKED FOR IDENTI-
FICATION BEFORE THE NOTARY PUBLIC AND IS ATTACHED HERETO.)

MR. KATZ: I'VE HAD AN UNSIGNED AFFIDAVIT OF JOHN W.
FOOTH IN SUPPORT OF ROCKWELL'S MOTION TO DISMISS UNDER RULE
12, FEDERAL RULES OF CIVIL PROCEDURE HANDED TO ME SHORTLY BEFORE
THE RECESS. WE HAVE HAD IT MARKED AS PLAINTIFF'S DEPOSITION
EXHIBIT 45.

Q I HAND YOU, MR. FOOTH, THIS AFFIDAVIT AND ASK YOU
IF YOU'VE EVER SEEN THAT DOCUMENT?

A YES.

ANYONE ELSE?

A I DON'T RECALL.

3 Q ANY OTHER KIND OF DESIGNERS THAT PARTICIPATED IN
4 THE GOTTLIEB CONTROLLER?

5 A NO.

6 Q HOW ABOUT PROGRAMMERS? WERE THERE PROGRAMMERS
7 THAT PARTICIPATED IN THE DESIGN OF THE GOTTLIEB CONTROLLER?

8 A NO, NOT AS SUCH. SOME CONTRIBUTED SMALL THINGS.

9 Q WHERE WAS THE PROGRAMMING DONE, DO YOU KNOW?

10 A YOU MEAN THE LOCATION?

11 Q WAS THE PROGRAMMING DONE BY ROCKWELL?

12 A YES.

13 Q WAS IT DONE BY A PROGRAMMER?

14 A YES.

15 Q WHO WAS THAT?

16 A DON HARMER.

17 Q THIS GOTTLIEB CONTROLLER IS IN FACT BEING PRESENTLY
18 MANUFACTURED AND SOLD BY ROCKWELL TO D. GOTTLIEB & COMPANY FOR
19 USE IN THE CONTROLLING OPERATION OF THE GOTTLIEB PINBALL
20 MACHINE; IS THAT RIGHT?

21 A YES.

22 Q HOW DO YOU KNOW THAT?

23 A HOW DO I KNOW WHAT?

24 Q HOW DO YOU KNOW THAT THE GOTTLIEB CONTROLLER IS
25 PRESENTLY BEING MANUFACTURED AND SOLD BY ROCKWELL TO GOTTLIEB
26 FOR USE IN CONTROLLING OPERATION OF GOTTLIEB PINBALL MACHINES?

27 A I'D SEEN SOME OF THE RELEASES, PRODUCTION
28 RELEASES.

Q WHAT'S A PRODUCTION RELEASE?

A WE RELEASE OUR PRODUCTION IN BLOCKS, AND IT'S DONE
3 ON A PIECE OF PAPER.

Q IS A PRODUCTION RELEASE A PIECE OF PAPER; IS IT
5 A DOCUMENT?

A IT'S A PIECE OF PAPER.

Q SO DO YOU KNOW FROM SEEING A PRODUCTION RELEASE,
8 WHICH IS A PIECE OF PAPER, THAT ROCKWELL IS PRESENTLY
9 MANUFACTURING AND SELLING THE GOTTLIEB CONTROLLER TO D. GOTTLIEB
10 & COMPANY FOR USE IN CONTROLLING OPERATION OF GOTTLIEB PINBALL
11 MACHINES?

A I'VE SEEN THE CARTON OF BOARDS.

Q BEING SHIPPED OUT?

A YES.

Q HAVE YOU SEEN THEM ON THE LOADING DOCK?

A YES, WITH THE GOTTLIEB LABEL ON THE BOX.

Q HAVE YOU SEEN THE BOARDS BEING MANUFACTURED?

A YES.

Q IN ROCKWELL?

A YES.

Q HAVE YOU SEEN THE BOARDS BEING INSTALLED IN
22 PINBALL MACHINES OF D. GOTTLIEB & COMPANY?

A YES.

Q WHEN DID YOU SEE THAT LAST?

A I DON'T RECALL.

Q THIS YEAR IN 1979?

A YES.

Q AT THE BEGINNING OF '79?

A I DON'T RECALL.

Q WHAT WAS THE PURPOSE OF YOUR BEING AT GOTTLIEB?

MR. HARDING: MR. KATZ, I BELIEVE THAT FALLS DIRECTLY INTO OUR EARLIER DISCUSSION. IF YOU WANT TO REPHRASE YOUR QUESTION PERHAPS I'LL ALLOW HIM TO ANSWER. IF YOU'RE GOING TO INQUIRE INTO THIS BUSINESS RELATIONSHIP -- BY MR. KATZ:

Q WHERE WERE YOU AT D. GOTTLIEB & COMPANY -- IN THE FACTORY, IN THE PRODUCTION FACILITY?

A YES.

Q DID YOU SEE THE GOTTLIEB CONTROLLER BOARDS BEING ASSEMBLED INTO GOTTLIEB PINBALL MACHINES?

A YES.

Q WAS THAT JUST ON THAT ONE OCCASION THIS YEAR OR WERE YOU THERE ON MORE THAN ONE OCCASION?

MR. HARDING: FOR UNLIMITED PURPOSES, MR. KATZ, WAS HE THERE ON MORE THAN ONE OCCASION?

MR. KATZ: YOU WOULDN'T LET HIM ANSWER WITH RESPECT TO WHAT THE PURPOSE WAS.

MR. HARDING: NOW I WANT TO KNOW IS YOUR QUESTION LIMITED TO WAS HE THERE TO INSPECT THE ASSEMBLY MORE THAN ONE TIME OR DID HE SEE THE ASSEMBLY MORE THAN ONE TIME?

MR. KATZ: LET ME ASK HIM THAT ONE.

Q WERE YOU THERE TO INSPECT THE ASSEMBLY?

A NO.

Q I APPARENTLY MISSPOKE BEFORE WHEN I SAID THAT GOTTLIEB BOARDS WERE BEING INSTALLED IN GOTTLIEB MACHINES. WHAT I MEANT WAS ROCKWELL BOARDS BEING INSTALLED IN GOTTLIEB

1 MACHINES.

2 BUT IT WAS THE ROCKWELL CONTROLLER; IS THAT HOW
3 YOU UNDERSTOOD IT?

4 A YES, THAT'S CORRECT.

5 Q THAT WAS YOUR PURPOSE, TO INSPECT THEM?

6 A NO.

7 MR. KATZ: WOULD YOU READ BACK THE LAST ANSWER?

8 (RECORD READ.)

9 BY MR. KATZ:

10 Q WERE YOU THERE IN RESPONSE TO A REQUEST BY D.
11 GOTTLIEB & COMPANY?

12 MR. HARDING: DON'T ANSWER THAT QUESTION THE WAY IT'S
13 PHRASED. THAT'S FOR UNBRIDLED -- DON'T ANSWER THAT QUESTION.
14 BY MR. KATZ:

15 Q WERE YOU THERE AS PART OF A REGULAR PATTERN OR
16 PROCEDURE OF VISITING D. GOTTLIEB?

17 MR. HARDING: DON'T ANSWER THE QUESTION THE WAY IT'S
18 PHRASED. IT GOES TO THE BUSINESS RELATIONSHIP BETWEEN THE TWO
19 COMPANIES.

20 BY MR. KATZ:

21 Q WHAT WAS THE PURPOSE OF BEING AT D. GOTTLIEB &
22 COMPANY?

23 MR. HARDING: ONCE AGAIN DON'T ANSWER THE QUESTION THE
24 WAY IT'S PHRASED. ACCORDING TO OUR EARLIER DISCUSSION, WHY
25 HE WAS THERE PERTAINS TO THE BUSINESS RELATIONSHIP BETWEEN THE
26 TWO COMPANIES.

27 BY MR. KATZ:

28 Q WAS YOUR VISIT THERE FOR DISCUSSING THE BUSINESS

1 RELATIONSHIP BETWEEN GOTTLIEB AND ROCKWELL?

2 MR. HARDING: DON'T ANSWER THE QUESTION, FOR WHY YOU
3 WERE THERE. I THINK YOU ALREADY TESTIFIED THAT YOU WERE THERE.

4 MR. KATZ: I'M ASKING HIM THE BASIS.

5 MR. HARDING: I'M SAYING IF HE WAS THERE IT NECESSARILY
6 WAS A RESULT OF A BUSINESS RELATIONSHIP BETWEEN THE TWO
7 COMPANIES.

8 MR. KATZ: NOT NECESSARILY.

9 MR. HARDING: ASK HIM THAT QUESTION THEN. WAS IT THE
10 RESULT OF A BUSINESS RELATIONSHIP BETWEEN THE TWO COMPANIES OR
11 WAS HE THERE REPRESENTING JOHN FOOTH, INDIVIDUAL?

12 BY MR. KATZ:

13 Q WERE YOU THERE AS A RESULT OF THE BUSINESS
14 RELATIONSHIP BETWEEN GOTTLIEB AND ROCKWELL?

15 MR. HARDING: I THINK YOU CAN ANSWER THAT QUESTION.

16 THE WITNESS: YES.

17 BY MR. KATZ:

18 Q WAS THE PURPOSE OF YOUR VISIT TO DISCUSS THAT
19 BUSINESS RELATIONSHIP?

20 MR. HARDING: DON'T ANSWER THE QUESTION.

21 BY MR. KATZ:

22 Q WAS THE PURPOSE OF YOUR VISIT TO DISCUSS TECHNICAL
23 PROBLEMS?

24 MR. HARDING: ONCE AGAIN, MR. KATZ, WE'RE NOT GOING TO
25 GET INTO THE PRIVILEGE OF COMMUNICATIONS BETWEEN GOTTLIEB AND
26 ROCKWELL UNTIL A JUDGE HAS HAD AN OPPORTUNITY TO RULE ON THIS.
27 I THINK FOR PURPOSES OF GIVING YOU THE OPPORTUNITY TO CROSS
28 EXAMINE FROM THIS AFFIDAVIT YOU HAVE AMPLY BEEN PROVIDED THE

BACKGROUND FOR HIS ABILITY TO SAY THAT HE'S SEEN A GOTTLIEB
CONTROLLER UNDER ASSEMBLY.

BY MR. KATZ:

Q HAVE YOU SEEN IT ONLY ON THAT ONE OCCASION THIS
YEAR?

A NO.

Q ON HOW MANY OCCASIONS THIS YEAR?

MR. HARDING: DON'T ANSWER THE QUESTION. IT GOES ONCE
AGAIN TO HOW MANY TRIPS HE'S MAKING TO CHICAGO, AND IT'S MERELY
CUMULATIVE EVIDENCE IN SUPPORT OF THIS AFFIDAVIT.

MR. KATZ: I THINK IF WE'RE GOING TO CROSS EXAMINE HIM
ON IT WE SHOULD BE ABLE TO DETERMINE HIS LACK OF BASIS FOR
MAKING THE STATEMENT.

MR. HARDING: I THINK YOU HAVE ADEQUATELY DETERMINED
HIS ABILITY TO MAKE THE STATEMENT BY HIS PERSONAL KNOWLEDGE.

MR. KATZ: I THINK THAT'S DEFINITELY IMPROPER LIMITATION
ON CROSS EXAMINATION.

MR. HARDING: UNTIL THE JUDGE RULES THAT THE BUSINESS
RELATIONSHIP IS SUSCEPTIBLE TO DISCOVERY WE'RE NOT GOING TO GET
INTO IT.

BY MR. KATZ:

Q I'M GOING TO PUT ASIDE ALL QUESTIONS OF BUSINESS
RELATIONSHIP. I'M ONLY GOING TO TALK ABOUT YOUR TECHNICAL
CONTRIBUTION, YOUR TECHNICAL INVOLVEMENT IN THE GOTTLIEB
CONTROLLER; AND I'M GOING TO ASK DID THAT VISIT TO GOTTLIEB
HAVE ANYTHING TO DO WITH THE TECHNICAL ASPECTS OF THE GOTTLIEB
CONTROLLER?

MR. HARDING: AND I SUBMIT THAT QUESTION IS ENTIRELY

1 IRRELEVANT TO THIS AFFIDAVIT, THE PURPOSE OF ANY VISIT THAT HE
2 MADE. YOU'RE THERE ASKING OF HIS FIRSTHAND KNOWLEDGE AND YOU
3 HAVE THAT KNOWLEDGE. ANY QUESTION BEYOND THAT GOES TO THE
4 BUSINESS RELATIONSHIP OF WHY HE WAS THERE, AND UNTIL THE JUDGE
5 RULES ON IT HE'S NOT GOING TO ANSWER.

6 BY MR. KATZ:

7 Q TELL ME EVERYTHING THAT YOU CAN RECALL THAT YOU
8 SAW CONCERNING THE USE OF THE GOTTLIEB CONTROLLER MADE BY
9 ROCKWELL IN THE GOTTLIEB PINBALL MACHINES AT THIS VISIT.

10 A I SAW BOARDS BEING INSTALLED IN GAMES, AND I SAW
11 GAMES BEING CHECKED OUT.

12 Q WHERE WERE YOU WHEN YOU SAW THAT?

13 A IN THE PRODUCTION AREA.

14 Q OF D. GOTTLIEB & COMPANY?

15 A YES.

16 Q HOW FAR AWAY FROM THOSE EVENTS WERE YOU WHEN YOU
17 SAW IT?

18 A WOULD YOU REPEAT THE QUESTION?

19 Q HOW FAR AWAY WERE YOU FROM THOSE EVENTS THAT YOU
20 SAY WERE TAKING PLACE?

21 A YOU MEAN PHYSICALLY?

22 Q YES.

23 A I WAS STANDING RIGHT NEXT TO THE GAMES.

24 Q DID YOU HAVE ANY PHYSICAL CONTACT WITH THOSE GAMES?

25 A I DON'T RECALL.

26 Q DID YOU PLAY ANY OF THOSE GAMES?

27 A YES.

28 Q FOR WHAT PURPOSE DID YOU PLAY THOSE GAMES? WAS IT

1 FOR AMUSEMENT?

2 A YES.

3 Q DID YOU CONDUCT ANY TESTS OF ANY SORT?

4 MR. HARDING: I'M GOING TO OBJECT TO THE QUESTION OF
5 WHAT YOU MEAN BY "TESTS", PURELY A 'SUBJECTIVE-TYPE TERM.

6 MR. KATZ: DO YOU INSTRUCT HIM NOT TO ANSWER?

7 MR. HARDING: I'M GOING TO INSTRUCT HIM NOT TO ANSWER
8 AN UNDEFINED TERM. HIM PLAYING THE PINBALL GAME CAN BE A TEST.
9 BY MR. KATZ:

10 Q WERE YOU BY PLAYING THE GAME TESTING OUT HOW THE
11 CONTROLLER OPERATED?

12 MR. HARDING: DON'T ANSWER THE QUESTION BECAUSE IT GOES
13 TO A PURPOSE OF WHY YOU WERE THERE, AND WE'VE ALREADY BEEN
14 DISCUSSING IT.

15 BY MR. KATZ:

16 Q YOU TESTIFIED, MR. FOOTH, JUST BEFORE THAT YOU
17 OBSERVED THEM TESTING AS WELL AS ASSEMBLING. DID YOU
18 PARTICIPATE IN ANY OF THE TESTING?

19 A I DON'T RECALL.

20 Q HOW LONG WERE YOU THERE?

21 A I DON'T RECALL.

22 Q A DAY?

23 MR. HARDING: DON'T ANSWER THE QUESTION UNLESS "THERE"
24 MEANS OBSERVING THE GOTTLIEB CONTROLLER WHICH IS THE SUBJECT
25 OF THE AFFIDAVIT. IF "THERE" MEANS THE GOTTLIEB FACILITY IN
26 CHICAGO, DON'T ANSWER THE QUESTION. I GUESS I'M GOING TO OBJECT
27 TO THE QUESTION AS BEING VAGUE.
28

BY MR. KATZ:

Q HOW LONG WERE YOU THERE OBSERVING THESE THINGS?

A I DON'T RECALL.

Q LESS THAN A DAY?

A I DON'T RECALL.

Q MORE THAN A DAY?

A I DON'T RECALL.

Q A MONTH?

A NO.

Q A WEEK?

A NO.

Q LESS THAN A WEEK?

A YES.

Q AN HOUR, TWO HOURS?

MR. HARDING: DON'T SPECULATE.

HE'S ALREADY TESTIFIED HE DOESN'T RECALL.

MR. KATZ: I THINK HE'S BEING EVASIVE.

MR. HARDING: YOU'RE ENTITLED TO YOUR OPINION.

MR. KATZ: I'M GOING TO CONTINUE PURSUING THIS LINE OF QUESTIONING. I THINK HE'S NOT TELLING THE WHOLE TRUTH. I THINK HE HAS A BELIEF AS TO THE AMOUNT OF TIME HE SPENT OBSERVING IT, AND HE'S REFUSING TO TELL ME.

MR. HARDING: ANY MORE STATEMENTS FROM YOU IN FRONT OF THIS WITNESS TO THAT EFFECT AND THAT WILL BE THE END OF IT. THAT IS PURE HARASSMENT, AND WE WON'T HAVE IT. I THINK AN APOLOGY IS IN ORDER.

BY MR. KATZ:

Q I'M GOING TO ASK THAT QUESTION AGAIN. WHAT IS

1 YOUR BELIEF AS TO HOW MUCH TIME YOU SPENT OBSERVING THOSE
2 THINGS?

3 MR. HARDING: DO NOT SPECULATE. I INSTRUCT YOU NOT TO
4 SPECULATE. GIVE YOUR BEST RECOLLECTION.

5 MR. KATZ: I'M ASKING FOR HIS BELIEF.

6 MR. HARDING: I'M TELLING HIM HE CAN GIVE HIS BEST
7 RECOLLECTION.

8 MR. KATZ: THAT'S NOT MY QUESTION. MY QUESTION GOES TO
9 HIS BELIEF AS TO HOW MUCH TIME HE SPENT.

10 MR. HARDING: IF HIS BELIEF IS BASED ON RECOLLECTION HE
11 CAN GIVE IT.

12 THE WITNESS: I RECALL THAT I WAS IN THE AREA ON A
13 COUPLE DIFFERENT OCCASIONS, POSSIBLY TWO CONSECUTIVE DAYS.

14 BY MR. KATZ:

15 Q THIS WAS IN 1979?

16 A YES.

17 Q HOW ABOUT IN 1978, WERE YOU THERE TO INSPECT --
18 STRIKE THAT.

19 WERE YOU THERE AND HAD OCCASION TO SEE THE
20 GOTTLIEB CONTROLLERS BEING USED IN THE GOTTLIEB PINBALL MACHINES?

21 MR. HARDING: I'M GOING TO OBJECT TO THE QUESTION AS
22 BEING PURELY CUMULATIVE. THE AFFIDAVIT DOES NOT GO TO WHAT
23 HAPPENED IN 1978 THAT I RECALL OTHER THAN HE HAD OBSERVED THE
24 GOTTLIEB CONTROLLER BEING ASSEMBLED OR WHATEVER, AND YOU
25 ALREADY ESTABLISHED HIS KNOWLEDGE ON THAT. ANY FURTHER
26 QUESTIONS WOULD BE DIRECTED TO THE BUSINESS RELATIONSHIP
27 BETWEEN THE TWO COMPANIES ON HIS REGULARITY IN HIS VISITS
28 BETWEEN GOTTLIEB AND ROCKWELL.

BY MR. KATZ:

2 Q DID YOU BASE YOUR ANSWER OR YOUR STATEMENT HERE
3 IN THE AFFIDAVIT ON THAT ONE VISIT THAT WE DISCUSSED, OR ON
4 ANY OTHER VISITS?

5 A I DON'T RECALL.

6 Q I ASKED YOU WHAT VISITS YOU BASED YOUR STATEMENT
7 IN PARAGRAPH 2 OF THE AFFIDAVIT ON?

8 MR. HARDING: I'M GOING TO OBJECT TO THE QUESTION WHEN
9 YOU USE THE TERM "VISITS". YOU ASSUME THAT HE BASED IT ON
10 MORE THAN ONE, AND I OBJECT TO THAT ASSUMPTION.

11 BY MR. KATZ:

12 Q DID YOU BASE IT ON MORE THAN ONE?

13 A I NEVER EVEN THOUGHT ABOUT VISITS WHEN I WAS
14 REVIEWING THAT.

15 Q WHAT DID YOU THINK ABOUT?

16 A MY ACTUAL EXPERIENCE ON THE PROGRAM.

17 Q WHAT WAS THAT?

18 A I HAD WORKED WITH IT SINCE ITS INCEPTION AND
19 DEVELOPED THE GAME, BUILT THE CONTROLLER.

20 Q WHAT ELSE?

21 A BASED UPON MY ENGINEERING AND DEVELOPMENT EFFORT.

22 Q IS THAT THE TOTAL BASIS ON WHICH YOU MADE THIS
23 STATEMENT IN PARAGRAPH 2, WHAT YOU JUST STATED?

24 A I DON'T KNOW.

25 Q YOU INDICATED THAT YOU BASED IT ON YOUR ENTIRE
26 EXPERIENCE IN THIS EFFORT. DID THAT EXPERIENCE INCLUDE MORE
27 THAN ONE VISIT TO D. GOTTLIEB & COMPANY?

28 A YES.

Q HOW MANY VISITS?

A I DON'T KNOW.

Q DID IT INCLUDE VISITS IN 1978?

MR. HARDING: ONCE AGAIN, DON'T ANSWER THAT QUESTION. YOU'RE ASKING DIRECTLY FOR HOW MANY VISITS HE MADE PURSUANT TO THIS BUSINESS RELATIONSHIP.

MR. KATZ: YOU'RE INSTRUCTING HIM NOT TO ANSWER?

MR. HARDING: UNTIL THE JUDGE RULES THAT YOU'RE ENTITLED TO DISCOVERY ON THE RELATIONSHIP BETWEEN THE COMPANIES. THIS WITNESS HAS TESTIFIED AS TO HIS ABILITY TO MAKE THAT STATEMENT AND THE TRUTH OF THAT STATEMENT. TO THE EXTENT THAT YOU DEMAND CUMULATIVE EVIDENCE, YOU'RE ONLY GOING TOWARD THE BUSINESS RELATIONSHIP.

MR. KATZ: NO. ON THE BASIS AND WEIGHT TO BE GIVEN TO THIS PARTICULAR AFFIDAVIT.

MR. HARDING: I SUBMIT -- WHAT STATEMENT ARE YOU REFERRING TO NOW?

MR. KATZ: PARAGRAPH 2.

MR. HARDING: WHAT STATEMENT SPECIFICALLY?

MR. KATZ: THAT HE HAS KNOWLEDGE OF THE USE OF GOTTLIEB CONTROLLERS MANUFACTURED AND SOLD BY ROCKWELL BEING USED IN THE CONTROLLING OPERATION OF GOTTLIEB PINBALL MACHINES.

MR. HARDING: HE HAS GIVEN YOU KNOWLEDGE TO SUPPORT THAT STATEMENT.

MR. KATZ: BUT YOU WON'T PERMIT A FULL INQUIRY INTO THAT SUBJECT. I UNDERSTAND YOUR POSITION, AND WE'LL DEAL WITH THAT APPROPRIATELY.

MR. HARDING: THANK YOU.

BY MR. KATZ:

2 Q WHEN YOU USE THE TERM "PRESENTLY BEING MANUFACTURED
3 AND SOLD BY ROCKWELL", WHAT TIME FRAME DID YOU HAVE IN MIND
4 BY THE TERM "PRESENTLY"?

5 A AT THE PRESENT TIME.

6 Q AT THE TIME YOU WERE SIGNING THIS AFFIDAVIT?

7 A A CONTINUING PRODUCTION.

8 Q CONTINUING PRODUCTION?

9 A YES.

10 Q IN PARAGRAPH 3 OF THE AFFIDAVIT YOU STATED THAT
11 THE ENGINEERING DESIGN FOR THE GOTTLIEB CONTROLLER WAS
12 COMPLETED IN 1977; IS THAT TRUE?

13 A THE INITIAL DESIGN.

14 Q WHAT DO YOU MEAN BY "INITIAL DESIGN"?

15 A PROTOTYPE TO PRODUCTION EFFORT.

16 Q WERE THERE SUBSEQUENT ENGINEERING DESIGNS?

17 A I DON'T RECALL. I JUST DON'T RECALL. I GUESS I
18 DON'T UNDERSTAND WHAT YOU MEAN BY "DESIGNS."

19 Q I'M USING IT IN WHATEVER WAY YOU USED THE TERM.
20 YOU SAID, "THE ENGINEERING DESIGN." IN YOUR AFFIDAVIT IT
21 DOESN'T SAY "INITIAL". IT SAYS THAT THE ENGINEERING DESIGN
22 FOR THE GOTTLIEB CONTROLLER WAS COMPLETED IN 1977.

23 A FOR INITIAL PRODUCTION, YES.

24 Q THEN YOU SAY:

25 "AND VOLUME MANUFACTURING BY ROCKWELL
26 OF PRODUCTION-TYPE GOTTLIEB CONTROLLERS
27 COMMENCED IN 1977."

28 A YES.

(THE DEPOSITION PROCEEDINGS RESUMED AFTER
A LUNCHEON RECESS AND THE REMAINDER OF THE
PROCEEDINGS WAS REPORTED BY JAYMA L. LOVEJOY,
CSR, NO. 3920.)

BY MR. KATZ:

Q YOU TESTIFIED JUST BEFORE, WHEN WE WERE OFF THE
RECORD WITHOUT KNOWING IT, THAT YOU HAD MET MR. EDWALL AND MR.
NEYENS AND MR. GOTTLIEB AT THE A.M.O.A. SHOW IN CHICAGO THIS --
WHEN YOU LAST ATTENDED; IS THAT CORRECT?

A YES.

Q NOW, DID YOU HAVE ANY DISCUSSIONS WITH THEM AT
THE SHOW?

A I DON'T RECALL.

Q DID YOU GO THROUGH THE EXHIBITION AT ALL WITH
EITHER OF THOSE PEOPLE?

A NO.

Q DID YOU MEET THEM AT THE SHOW IN CONNECTION WITH
THE GOTTLIEB EXHIBIT?

A AS I RECALL, IT WAS AT THE GOTTLIEB EXHIBIT.

Q DID YOU MEET ANYBODY FROM WILLIAMS AT THE SHOW?

A NO.

Q DID YOU MEET ANYBODY FROM BRUNSWICK AT THE SHOW?

A NO.

Q BEFORE THE LUNCHEON RECESS, I SHOWED YOU TWO
DOCUMENTS PRODUCED BY YOUR COUNSEL -- R1025 AND R1718, WHICH
YOU INDICATED REFERRED TO THE GOTTLIEB PINBALL CONTROLLER.
AND THAT R1718 --

1 EXCUSE ME. DO YOU HAVE COPIES OF YOUR OWN?
2 BOTH R1025 AND R1718? IT WOULD BE MORE CONVENIENT, I SUPPOSE,
3 IF YOU COULD SHOW THE WITNESS YOUR COPIES.

4 YOU INDICATED THAT THE R1718 DOCUMENT WAS AN
5 UPDATED VERSION OF THE R1025 DOCUMENT; IS THAT CORRECT?

6 A YES.

7 Q AND THAT THE UPDATED VERSION WAS DONE ON OR ABOUT
8 AUGUST 29, 1978?

9 A YES.

10 Q WHAT WERE THE DIFFERENCES IN THE GOTTLIEB
11 CONTROLLER THAT WERE REFLECTED IN THE AUGUST 29, '78
12 DOCUMENT AS COMPARED TO THE JANUARY 27TH, 1977 DOCUMENT?

13 MR. HARDING: WOULD YOU REPEAT THE QUESTION, PLEASE?

14 (RECORD READ.)

15 MR. HARDING: OBJECT TO THE QUESTION FOR LACK OF
16 FOUNDATION THAT THERE WERE ANY DIFFERENCES IN THE CONTROLLER.
17 I THINK HE'S TESTIFIED THESE WERE UPDATED DOCUMENTS.

18 MR. KATZ: I MEAN, CONTROLLER DEPICTED -- THE CONTROLLER,
19 CONTROL SYSTEM BLOCK DIAGRAM DEPICTED IN EACH ONE.

20 MR. HARDING: OFF THE RECORD.

21 (DISCUSSION OFF THE RECORD.)

22 MR. HARDING: BACK ON THE RECORD.

23 THE WITNESS: THE DIFFERENCE SEEMS TO BE IN THE LIST
24 OF FUNCTIONS AS NEAR AS I CAN DETERMINE.

25 BY MR. KATZ:

26 Q WHAT LIST OF FUNCTIONS?

27 A ON THE LOWER RIGHT OF R1718 --

28 Q I NOTICE ON R1718, IT STARTS WITH A LIST OF FOUR

1 MULTIPLE LAMPS; IS THAT WHAT IT SAYS?

2 A YES.

3 Q AND THEN IT SAYS, "32 LAMPS, SINGLE." WHAT DID
4 THAT REFER TO?

5 A DRIVING FUNCTIONS -- "MULTIPLE LAMPS," INDICATES
6 MORE THAN ONE LAMP PER DRIVER.

7 Q AND THAT WASN'T INDICATED ON THE OTHER ONE; IS
8 THAT RIGHT? ON R1025?

9 A YES.

10 Q AND THEN IT SAYS, "32 LAMPS, SINGLE." WHAT DOES
11 THAT REFER TO?

12 A THAT WOULD BE SINGLE LAMP DRIVERS.

13 Q NOW, DOES THAT REFER TO A DIFFERENT -- UP AT THE
14 UPPER RIGHT-HAND CORNER OF THAT DOCUMENT, R1718, WHERE IT
15 SAYS, "TWO TIMES FOUR," AND THEN I CAN'T MAKE OUT WHAT THAT
16 IS AFTERWARDS -- CIRCUITS -- TWO TIMES FOUR CIRCUITS, IS THAT
17 WHAT THAT STANDS FOR? THEN UNDER, IT SAYS, "USED EQUALS 36"?

18 A THAT IS MY WAY OF INDICATING THAT I NEED 36 TOTAL
19 DRIVERS.

20 Q I'M SORRY?

21 A IT'S MY WAY OF INDICATING I NEED 36 TOTAL DRIVERS
22 ON THAT INTERFACE.

23 Q FOR THE LAMPS; IS THAT RIGHT?

24 A YES.

25 Q AND WHAT IS THE SIGNIFICANCE OF, "TWO TIMES FOUR"
26 WHAT DOES THAT MEAN?

27 IS THAT WHAT THAT SAYS -- "TWO TIMES FOUR"? MAYBE
28 I'M MISREADING IT.

A YES -- IN THIS CONFIGURATION, I HAVE 15 QUAD LATCHES.
THERE ARE FOUR POSITIONS IN EACH LATCH, AND AS A RESULT, I HAVE
60 TOTAL LAMP FUNCTIONS POSSIBLE.

Q AND THAT'S REFLECTED ON DOCUMENT R1025; IS THAT
RIGHT?

A YES.

Q NOW, HOW DOES THAT RELATE TO THIS "TWO TIMES
FOUR" INDICATION ON R1718?

A THE 60 LAMPS THAT I'VE SHOWN HERE ACTUALLY INDICATES
THERE ARE 60 POSSIBLE DRIVERS NEEDED IN THAT CONFIGURATION.

Q SIXTY POSSIBLE DRIVERS?

A YES.

Q AND WHAT IS THE SIGNIFICANCE OF "TWO TIMES FOUR"
IN R1718?

A I CAN'T --

MR. HARDING: LOOKS LIKE "TWO TIMES FOUR" --

THE WITNESS: IT'S A NINE.

BY MR. KATZ:

Q THAT SHOULD BE A NINE?

A YES.

Q SO NINE TIMES FOUR, 36?

A YES.

Q AND WHAT IS THE ABBREVIATION AFTER NINE TIMES
FOUR?

A CIRCUITS -- C-K-T-S.

Q WHAT IS THE SIGNIFICANCE OF THAT?

A IN THIS CONFIGURATION, I HAVE NINE QUAD LATCHES
WITH FOUR LATCH POSITIONS. AND AS A RESULT, I HAVE A TOTAL

1 OF 36 DRIVERS.

2 Q AND WERE THESE LAMPS FOR USE IN A PINBALL PLAY
3 FIELD?

4 A YES.

5 Q AND WAS THERE A GOTTLIEB CONTROLLER THAT WAS
6 BUILT WITH THE 36 DRIVERS?

7 A YES.

8 Q WAS THERE A GOTTLIEB PINBALL CONTROLLER BUILT
9 WITH THE 60 LAMP DRIVERS?

10 A I DON'T RECALL.

11 Q REFERRING BACK DOWN TO THE LIST -- THE 32 LAMPS
12 THAT WERE SINGLE -- THOSE LAMPS TOTALLED TOGETHER WITH THE
13 FOUR MULTIPLE LAMPS PROVIDED THE 36 LAMPS -- LAMP DRIVERS THAT
14 WERE REQUIRED AND THAT WERE REFERRED TO ABOVE; IS THAT RIGHT?

15 A YES.

16 Q THE NEXT ITEM IS "8 SOL." DOES THAT STAND FOR
17 EIGHT SOLENOIDS?

18 A WHAT DOCUMENT?

19 Q ON R1718, REFERRING BACK TO THE LIST OF FUNCTIONS
20 THAT YOU REFERRED TO.

21 A YES, THAT IS EIGHT SOLENOIDS.

22 Q AND THAT COMPARES IN THE OTHER ONE WITH 16
23 SOLENOIDS?

24 A YES.

25 Q AND R1025 -- DOES THE "16 SOLENOID" INDICATE
26 THAT THAT'S THE MAXIMUM SOLENOIDS FOR THIS SYSTEM -- MAXIMUM
27 NUMBER OF SOLENOIDS?

28 A YES.

Q WAS THERE A GOTTLIEB CONTROLLER MADE FOR GOTTLIEB
2 THAT USED EIGHT SOLENOIDS?

3 A YES.

4 Q ARE THERE SOLENOID DRIVERS DEPICTED IN THIS
5 BLOCK DIAGRAM IN R1718?

6 A YES.

7 Q AND COULD YOU POINT OUT WHERE THOSE ARE?

8 A YES. ON 1718, IT'S IN THE LOWER RIGHT (INDICATING).
9 THE DRIVING DEVICE IS A17YY. I SHOW A BUFFERING CIRCUIT AND
10 A DRIVER FOR EACH SOLENOID. USING JUST ONE CIRCUIT TO INDICATE,
11 YOU KNOW, THERE ARE 16 IDENTICAL CIRCUITS.

12 Q BUT, IN FACT, IN THE CONTROLLER THAT WAS USED,
13 THERE WERE ONLY 18 SOLENOIDS; IS THAT RIGHT?

14 A NO.

15 Q WHAT DOES THE EIGHT SOLENOIDS REFER TO HERE ON
16 R1718?

17 A WELL -- YEAH -- IT'S EIGHT AND NOT 18.

18 Q I'M SORRY. EIGHT SOLENOIDS.

19 A YES.

20 Q WERE THERE EVER ANY GOTTLIEB CONTROLLERS THAT
21 WERE MADE FOR DRIVING MORE THAN EIGHT SOLENOIDS?

22 A NO.

23 Q THE NEXT ITEM IS 28 DISPLAY DIGITS. WHAT DOES
24 THAT REFER TO?

25 A THE TOTAL AMOUNT OF DISPLAY THAT IS AVAILABLE FOR
26 USE.

27 Q AND THE NEXT ITEM SAYS, "40 SWITCHES (MATRIX)."
28 WHAT DOES THAT REFER TO?

A IT REFERS TO A FIVE BY EIGHT SWITCH MATRIX.

2 Q AND THAT'S IN THE CENTER WHERE IT SAYS, "SWITCH
3 MATRIX, FIVE TIMES EIGHT" OR --

4 A YES.

5 Q AND COMPARING THAT WITH R1025, SHOWS A SWITCH
6 MATRIX EIGHT BY EIGHT; IS THAT RIGHT?

7 A YES.

8 Q DID YOU EVER MAKE A CONTROLLER -- PINBALL
9 CONTROLLER -- THAT HAD EIGHT BY EIGHT SWITCH MATRIX?

10 A I DON'T RECALL.

11 CAN I TALK FOR A MINUTE?

12 (DISCUSSION OFF THE RECORD.)

13 THE WITNESS: I'M NOT SURE.

14 BY MR. KATZ:

15 Q BUT YOU MIGHT HAVE?

16 A I DON'T KNOW.

17 Q DID YOU EVER MAKE A PINBALL CONTROLLER FOR
18 GOTTLIEB THAT HAD AN EIGHT BY EIGHT SWITCH MATRIX?

19 A I DON'T KNOW.

20 Q THE NEXT ITEM SAYS, "FOUR" -- AND DOES THAT STAND
21 FOR MISCELLANEOUS SWITCHES? IS THAT WHAT THAT STATEMENT IS?

22 A THAT IS CORRECT.

23 Q AND THE NEXT ONE SAYS "24 ADJUSTABLE FEATURES"?
24 IS THAT WHAT IT SAYS?

25 A YES.

26 Q WHAT DOES THAT MEAN?

27 A THAT REFERS TO VARIOUS OPERATOR ADJUSTABLES THAT
28 CAN BE TURNED ON AND OFF BY MEANS OF A SWITCH SUCH AS A

THREE-BALL OR FIVE-BALL GAME -- CHIMES, ON OR OFF -- THAT SORT OF THING.

MR. KATZ: IN THE R1025 DOCUMENT, I NOTICE THAT THAT LINE SEEMS TO BE BLOCKED OFF IN MY COPY. DO YOU HAVE AN ORIGINAL TO JUST VERIFY WHAT WAS THERE?

MR. HARDING: WHICH ONE?

MR. KATZ: R1025, THE BOTTOM LINE WHERE IT SAYS, "24. ADJUSTABLE FEATURES TO R1718," BLOCKED OFF ON MY COPY OF 1025.

MR. HARDING: LOOK AT THE ORIGINAL MAYBE A LITTLE CLOSER.

MR. KATZ: IT'S THE SAME ON THE ORIGINAL. IS THIS YOUR ORIGINAL?

MR. HARDING: YOU CAN SEE THE ORIGINAL NUMBER ON IT.

MR. KATZ: IS THAT 24 -- LOOKS LIKE IT.

BY MR. KATZ:

Q DID THAT REMAIN THE SAME?

A I DON'T KNOW.

Q WHAT WAS THE PURPOSE OF YOUR UPDATING THIS DRAWING?

A I RECALL THAT WE CHANGED THE SIZE OF THE GAME IN REGARD TO THE DIFFERENCE IN THE SWITCH MATRIX -- I BELIEVE WE DECIDED THAT WE JUST DIDN'T NEED THAT MANY.

Q THAT MANY SWITCHES, YOU MEAN?

A YES.

Q AND WHO MADE THAT DECISION THAT YOU DIDN'T NEED THAT MANY?

A I DON'T RECALL.

Q DID YOU PARTICIPATE IN THE DECISION?

A YES.

Q AND WHEN WAS THAT MADE?

A I DON'T RECALL.

Q WAS IT ON OR ABOUT THAT TIME THAT YOU DID THE
UPDATING OF THE DRAWING?

A I DON'T RECALL.

Q HOW DID YOU DECIDE THAT YOU DIDN'T NEED THAT
MANY SWITCHES?

MR. HARDING: NOW, I BELIEVE WE ARE DIRECTLY IN THE
AREA, MR. KATZ, OF WHAT WE TALKED ABOUT IN THAT ROCKWELL
WOULD YIELD THE DISCOVERY ON THE TECHNICAL CHANGES WHICH WERE
MADE, BUT AS TO THE RELATIONSHIP BETWEEN THE TWO COMPANIES IN
HOW CHANGES CAME ABOUT AND WHY CHANGES CAME ABOUT -- FOR WHAT
REASONS, ET CETERA -- WE DO NOT HAVE DOCUMENTS COLLECTED TO
KNOW WHAT DOCUMENTS THERE ARE. AND OUR OBJECTION REMAINS
AGAINST YIELDING TESTIMONY ON THAT POINT.

MR. KATZ: I'M JUST ASKING HIM A QUESTION ABOUT TWO
DIFFERENT DOCUMENTS AND HOW WE GOT FROM ONE DOCUMENT TO THE
OTHER. HERE'S TWO DOCUMENTS, SPECIFICALLY, AND THERE'S -- A
SPECIFIC DECISION WAS MADE, AND THE WITNESS SAID HE PARTICIPATED
IN THE DECISION, AND I WOULD LIKE TO KNOW WHAT THE BASIS FOR
THAT DECISION WAS.

MR. HARDING: WELL, THE DATE OF ONE DOCUMENT IS
AUGUST 29TH, 1978, WHICH IS SEVERAL MONTHS AFTER THE PATENT
ISSUE AND SEVERAL MONTHS AFTER COMMENCEMENT OF THE LITIGATION.
AND WE ARE RIGHT IN THE TIME FRAME THAT, IF A DECISION WAS
A MUTUAL DECISION BETWEEN DEFENDANT, GOTTLIEB, AND DEFENDANT,
ROCKWELL, THEN THAT IS RIGHT IN THE IMMEDIATE AREA THAT WE'RE

GOING TO HAVE TO GET A RULING FROM THE JUDGE ON DISCOVERY OF
THIS RELATIONSHIP.

MR. KATZ: I'M NOT ASKING ANY QUESTION ABOUT A RELATION-
SHIP. I'M ONLY ASKING HIM WHAT THE BASIS FOR THAT DECISION
WAS.

MR. HARDING: WELL, PERHAPS WE CAN AVOID THE ISSUE OF
HIM TELLING YOU WHAT THE BASIS IS.

MR. KATZ: HE SAID -- LET'S GO OFF THE RECORD.

(DISCUSSION OFF THE RECORD.)

MR. HARDING: NOW, WHAT'S THE OUTSTANDING QUESTION?

(RECORD READ.)

MR. HARDING: WELL, TO THE EXTENT THAT THE BASIS FOR
ANY DECISION WAS A JOINT COLLABORATION BETWEEN ROCKWELL AND
GOTTLIEB, THEN I'M INSTRUCTING HIM NOT TO ANSWER. HE CAN
ANSWER WHAT CHANGES OCCURRED IN THE ROCKWELL MANUFACTURED
CONTROLLER PURSUANT TO OUR UNDERSTANDING THAT WE WOULD BE
ENTITLED TO THE SAME TYPE OF INFORMATION FROM BALLY. WE WOULD
DEFER TO A RULING BY JUDGE GRADY ON WHETHER THE UNDERLYING
INFORMATION FOR THE CHANGES IS DISCOVERABLE BY BALLY.
BY MR. KATZ:

Q WAS THIS A CHANGE IN THE GOTTLIEB CONTROLLER?

A YES.

Q AND WAS IT REFLECTED IN A CHANGE, THEN, IN THE
GOTTLIEB CONTROLLERS THAT WERE ACTUALLY -- LET ME SAY, IN
PRODUCTION? IN OTHER WORDS, PRODUCTION GOTTLIEB CONTROLLERS.

A I DON'T RECALL.

MR. HARDING: TO THE EXTENT THAT YOU HAVE PRODUCTION
DRAWINGS IN FRONT OF YOU, WHY, MR. KATZ, I'M SURE, WOULD INVITE

YOUR ATTENTION TO THOSE DRAWINGS.

MR. KATZ: FEEL FREE, MR. FOOTH, TO LOOK AT THESE DRAWINGS IN FRONT OF YOU TO ANSWER THE QUESTION.

THE WITNESS: OH, I THINK I CAN ANSWER THE QUESTION.

THE ANSWER IS, "YES," BUT IT WOULD BE A DELETION, SO IT DIDN'T REALLY AFFECT THE INTERFACE. IT JUST LEFT US WITH THREE ADDITIONAL CIRCUITS WE DIDN'T USE.

BY MR. KATZ:

Q DID YOU EVER USE THEM FOR ANY PURPOSE?

A I DON'T RECALL.

Q WAS THAT DECISION MADE IN COLLABORATION WITH GOTTLIEB PERSONNEL?

A REPEAT THE QUESTION, PLEASE?

Q WAS THAT DECISION MADE IN COLLABORATION WITH GOTTLIEB PERSONNEL?

THAT WAS -- IF IT WAS, YOU WERE NOT GOING TO LET ME INQUIRE INTO THAT AREA. AND I JUST WANT TO ESTABLISH THE FACT THAT WASN'T --

MR. HARDING: WELL -- AND I'M NOT GOING TO ALLOW HIM TO TESTIFY AS TO WHETHER IT WAS OR WAS NOT.

BY MR. KATZ:

Q DID YOU EVER MAKE ANY DECISIONS WITH RESPECT TO THE GOTTLIEB CONTROLLER AFTER IT WAS IN PRODUCTION BY ROCKWELL IN COLLABORATION WITH GOTTLIEB PERSONNEL?

MR. HARDING: YOU MAY ANSWER THAT QUESTION UP TO THE ISSUANCE OF THE PATENT AND FILING OF THE SUIT IN JUNE, 1978.

THE WITNESS: WHAT WAS THE QUESTION?

MR. KATZ: WILL YOU READ THE QUESTION BACK?

(RECORD READ.)

2 THE WITNESS: YES.

3 BY MR. KATZ:

4 Q AND AFTER JUNE OF 1978, WAS THAT ALSO TRUE?

5 MR. HARDING: ONCE AGAIN, THE SAME OBJECTION AS I'VE --
6 WAS PREVIOUSLY --

7 MR. KATZ: IN OTHER WORDS, YOU'RE OBJECTING TO MY
8 INQUIRIES AFTER THE PATENT ISSUE?

9 MR. HARDING: IN LIGHT OF -- YES, INTO THE RELATIONSHIP
10 BETWEEN GOTTLIEB AND ROCKWELL ON WHY CHANGES CAME ABOUT, AT
11 WHOSE REQUEST, ET CETERA, UNTIL EITHER BALLY'S POSITION ON
12 THIS SUBJECT OR ROCKWELL'S POSITION ON THIS SUBJECT IS
13 DETERMINED TO BE THE CORRECT POSITION.

14 MR. KATZ: YOU MEAN TO SAY THAT AFTER THE PATENT ISSUE --
15 AND YOU'VE NOW FILED A MOTION TO DISMISS FOR FAILURE TO STATE
16 A CLAIM ON WHICH RELIEF CAN BE BASED BECAUSE YOU'VE MAINTAINED
17 THERE'S NO CONTRIBUTOR INDUCEMENT OF INFRINGEMENT, AND YOU'RE
18 REFUSING TO LET US INQUIRE INTO THE RELATIONSHIP BETWEEN
19 GOTTLIEB AND ROCKWELL DURING THIS PERIOD AFTER THE PATENT ISSUE
20 WHEN THERE CAN BE INDUCEMENT AND CONTRIBUTOR INFRINGEMENT?
21 THAT'S YOUR POSITION?

22 MR. HARDING: THE POSITION IS AS I STATED ON THE
23 RECORD THIS MORNING. THE JUDGE HAS SET A BRIEFING SCHEDULE AS
24 TO THE MOTIONS.

25 MR. WELSH: LET'S TAKE A RECESS.

26 (BRIEF RECESS.)

27 BY MR. KATZ:

28 Q MR. FOOTH, ARE YOU AWARE OF THE FACT THAT BALLY

A WE WERE SPECULATING ABOUT THE PATENT, I SUPPOSE.

2 Q AND WHAT WAS THAT?

3 A WELL, WE THOUGHT IT WAS RIDICULOUS.

4 Q WHY WAS THAT?

5 A WELL, BECAUSE OF THE WAY IT READ.

6 Q DID MR. SIMS READ THE PATENT, TOO?

7 A I DON'T RECALL.

8 Q AND ON WHAT BASIS OF YOUR READING OF THE PATENT
9 DID YOU FEEL THAT IT WAS RIDICULOUS?

10 A IT WASN'T SPECIFIC IN ANY SENSE OF THE WORD.
11 THAT'S ABOUT ALL I REMEMBER.

12 Q WELL, DID YOU HAVE ANY UNDERSTANDING AS TO WHAT
13 THE PATENT RELATED TO?

14 A YES.

15 Q WHAT WAS THAT?

16 A SOLID STATE PINBALL GAME.

17 Q AND DID YOU HAVE ANY MORE SPECIFIC UNDERSTANDING
18 OTHER THAN THAT AS TO WHAT IT RELATED TO?

19 A NO.

20 Q WHEN DID YOU HAVE THIS CONVERSATION WITH MR.
21 EDWALL CONCERNING HIS DEPOSITION?

22 A I -- I DON'T RECALL THE DATE.

23 Q YES. BUT ABOUT WHEN? ABOUT HOW LONG AGO?

24 A A MONTH AGO, MAYBE.

25 Q AND IN THAT REGARD, DID MR. EDWALL TELL YOU
26 ANYTHING ELSE OTHER THAN THAT HIS DEPOSITION WOULD BE TAKEN?

27 A NO.

28 Q WAS THERE ANY DISCUSSION WITH EITHER MR. EDWALL OR

1 MR. NEYENS CONCERNING ANY REDESIGN EFFORT ON THE PINBALL CON-
2 TROLLER?

3 A I DON'T UNDERSTAND THE QUESTION.

4 Q WHAT DON'T YOU UNDERSTAND?

5 A DESIGN CHANGE FOR WHAT PURPOSE?

6 Q FOR ANY PURPOSE.

7 A YES.

8 Q AND WHAT --

9 MR. HARDING: ARE YOU TALKING ABOUT CHANGES, FOR
0 EXAMPLE, COUNSEL, THAT ARE MAYBE REFLECTED IN THE PRODUCTION
1 DRAWINGS?

2 MR. KATZ: I DON'T KNOW -- THE WITNESS IS ANSWERING
3 THE QUESTION. I DON'T KNOW WHAT HE'S REFERRING TO. I'LL ASK
4 HIM.

5 BY MR. KATZ:

6 Q WHAT WERE THE DESIGN CHANGES THAT YOU'RE REFERRING
7 TO?

8 MR. HARDING: TO THE EXTENT THAT --

9 I WANT TO HEAR THE ANSWER, FIRST.

10 (DISCUSSION OFF THE RECORD.)

11 MR. HARDING: DO YOU WANT THE ANSWER BEFORE WE BREAK?

12 MR. KATZ: YES.

13 THE WITNESS: WHAT WAS THE QUESTION?

14 MR. KATZ: WOULD YOU READ THE QUESTION?

15 (RECORD READ.)

16 THE WITNESS: IMPROVEMENTS.

17 BY MR. KATZ:

18 AND WHAT WERE THE IMPROVEMENTS?

A I DON'T RECALL THE DETAILS.

Q DO YOU RECALL ANYTHING ABOUT THEM?

A (NO AUDIBLE RESPONSE.)

Q AS BEST AS YOU CAN RECALL, EVEN IN GENERAL, WHAT WERE THE IMPROVEMENTS?

A I RECALL ONE ITEM. THEY WANTED TO CHANGE THE TYPE OF LAMP DRIVER SO THAT IT WOULD DRIVE A BIGGER LOAD. THAT IS THE ONLY CHANGE I REMEMBER IN DETAIL AT THIS MOMENT.

Q AND WHO MADE THE CHANGE?

WAS THE CHANGE EVER MADE?

A YES.

Q AND WAS THAT CHANGE MADE AT ROCKWELL?

A YES.

Q AND WHAT WAS THE CHANGE WITH RESPECT TO THE LAMP DRIVER?

A WELL, WE CHANGED THE TYPE OF DRIVER.

Q FROM WHAT TO WHAT?

A AN MPSA13 TRANSISTOR TO AN MPSU45 TRANSISTOR.

Q AND WHEN DID THIS OCCUR?

A I DON'T RECALL.

Q WITHIN THE LAST YEAR?

A NO.

Q PRIOR TO THAT TIME?

A I BELIEVE SO.

Q WERE ANY CHANGES MADE WITHIN THE LAST YEAR THAT YOU RECALL?

MR. HARDING: DO YOU WANT HIM TO LOOK AT THE DOCUMENTS?

///

BY MR. KATZ:

2 Q YES. WHY DON'T YOU, MR. FOOTH, LOOK AT THE
3 DOCUMENTS THAT WE HAVE HERE -- JUST A FEW -- AND SEE IF THERE
4 ARE ANY CHANGES THAT WERE MADE DURING THIS LAST YEAR.

5 MR. HARDING: I DON'T NECESSARILY AGREE THAT THERE ARE
6 JUST A FEW DOCUMENTS, BUT HE MAY CERTAINLY LOOK THROUGH THEM.

7 MR. KATZ: ANYWAY, THOSE DOCUMENTS THAT WERE PRODUCED
8 BY YOUR COUNSEL.

9 (BRIEF RECESS.)

10 MR. KATZ: BACK ON THE RECORD.

11 BY MR. KATZ:

12 Q AFTER REVIEWING THOSE DOCUMENTS, ARE YOU ABLE
13 TO ANSWER THE QUESTION?

14 A YES, IN PART.

15 WHAT WAS THE QUESTION?

16 MR. KATZ: WOULD YOU READ THE QUESTION?

17 (RECORD READ.)

18 THE WITNESS: THE ANSWER IS, "YES."

19 BY MR. KATZ:

20 Q WHAT WERE THE CHANGES?

21 A WELL, ONE CHANGE I REMEMBER WAS A CHANGE IN THE
22 TYPE OF BATTERY USED ON THE CONTROL BOARD. THE ORIGINAL
23 BATTERY WAS A SOLDERED-IN BATTERY PACK. IT HAD TO BE WIRED
24 IN PLACE AND SOLDERED AFTER BOARD ASSEMBLY. AND ALSO, THE
25 BATTERY WAS MOUNTED ONTO CLIPS THAT REQUIRED HARDWARE TO MOUNT
26 TO THE BOARD. WE FOUND A SUBSTITUTE BATTERY THAT COULD BE
27 WAVE SOLDERED TO THE CIRCUIT BOARD WITHOUT ANY HAND OPERATIONS
28 AS A PART OF THE REGULAR ASSEMBLY. SO WE CHOSE TO SUBSTITUTE

THAT PART.

2 Q WERE THERE ANY OTHER CHANGES?

3 A YES, A NUMBER OF PARTS SUBSTITUTIONS WHICH WERE
4 NECESSARY TO SUPPORT THE PROGRAM FROM A QUANTITY STANDPOINT.

5 Q WHAT DO YOU MEAN BY THAT?

6 A WELL, FOR EXAMPLE, IN SOME CASES, WE MIGHT HAVE
7 BEEN USING MOTOROLA PARTS, AND WE COULDN'T GET THEM. SO WE
8 WOULD THEN SUBSTITUTE NATIONAL.

9 Q YOU MEAN TO KEEP THE PROGRAM GOING?

10 A YES.

11 Q ANY OTHER CHANGES?

12 A YES, I RECALL ONE OTHER. I MADE A DESIGN CHANGE
13 IN THE P.O. CIRCUIT.

14 Q WHAT IS A P.O. CIRCUIT?

15 A POWER UP.

16 Q POWER WHAT?

17 A POWER UP.

18 Q POWER UP?

19 A YES.

20 Q AND YOU CALL IT A "P.O. CIRCUIT"?

21 A (NO AUDIBLE RESPONSE.)

22 Q IS THAT AN ACRONYM FOR "POWER UP" -- "P.O."?

23 A THAT'S WHAT IT'S CALLED. P.O.

24 Q P.O., AND IT'S POWER UP? AND WHAT IS THE FUNCTION
25 OF A POWER UP CIRCUIT?

26 A THE FUNCTION OF THE P.O. CIRCUIT IS TO RESET AND
27 INITIALIZE THE GAME WHEN YOU TURN THE POWER ON.

28 Q AND WHAT WAS THE DESIGN CHANGE THAT YOU MADE?

2 A AS I RECALL, WE CHANGED THREE RESISTORS -- THREE
3 RESISTOR VALUES.

4 Q AND WHAT OCCASIONED THAT CHANGE?

5 A THE CIRCUIT DIDN'T WORK RELIABLY. WE FOUND THAT
6 OCCASIONALLY, THE CIRCUIT WOULD NOT GENERATE A POWER UP SIGNAL.
7 IT WAS WHAT I CALLED A MANDATORY DESIGN CHANGE.

8 Q IN ORDER TO ACHIEVE MORE RELIABILITY OF THE
9 SYSTEM?

10 A YES.

11 Q WERE THERE ANY OTHER CHANGES THAT YOU FOUND LOOKING
12 THROUGH THESE DRAWINGS?

13 MR. HARDING: YOU MAY REFER TO THEM AGAIN IF YOU WISH.

14 MR. KATZ: SURE.

15 THE WITNESS: I WAS AFRAID YOU MIGHT SAY THAT.

16 BY MR. KATZ:

17 Q WHICH ARE THE DRAWINGS THAT WOULD REFLECT THAT?
18 I THINK PROBABLY WE HAVE MORE THAN YOU REALLY NEED FOR THAT
19 PURPOSE -- FOR THAT FACT -- IN FRONT OF YOU. WHICH ONES ARE
20 THE ONES --

21 A WELL, ANY CHANGES TO DOCUMENTATION OR TO PARTS
22 LIST WOULD BE IN THE REVISION BLOCK.

23 Q OF THESE BLUEPRINTS?

24 A YES.

25 Q YOU CALL THESE BLUE LINE DRAWINGS? IS THAT THE
26 RIGHT TERM FOR IT?

27 A BLUEPRINTS OR JUST DRAWINGS.

28 Q THIS ONE IS R2800?

A YES.

Q THIS ONE IS R2841, AND R2843 -- PERHAPS YOU CAN
JUST CALL THEM OFF FOR THE PURPOSES OF THE RECORD SO WE HAVE
A RECORD SO WE KNOW WHAT YOU LOOKED AT IN MAKING THESE DETER-
MINATIONS.

A R2837, R2836, R2840, R2838, R2803, R2807, R2808,
AND R2802.

Q DO THOSE DRAWINGS REPRESENT CURRENT PRODUCTION
DRAWINGS FOR THE GOTTLIEB CONTROLLER?

A YES.

Q OKAY. LOOKING THROUGH THOSE DRAWINGS, THEN, COULD
YOU SEE IF THERE ARE ANY OTHER CHANGES? MAYBE YOU CAN DO
IT BRIEFLY.

MR. HARDING: OFF THE RECORD.

(DISCUSSION OFF THE RECORD.)

BY MR. KATZ:

Q DID YOU FIND ANY OTHER CHANGES?

A YES.

Q WHAT ARE THOSE?

A CHANGE IN RESISTOR VALUES TO REDUCE THE -- THE
CURRENT ON THE A.P.M. INTERFACE.

Q WHAT'S AN A.P.M. INTERFACE?

A ADJUSTABLE PARAMETER --

Q AND THAT --

A -- MATRIX.

Q ADJUSTABLE PARAMETER MATRIX? IS THAT THE MATRIX
THAT CONTAINS THE FEATURE SWITCHES WE REFERRED TO?

A YES.

Q WAS THERE A PROBLEM THAT OCCASIONED THAT CHANGE?

1 A YES. IT WAS A RELIABILITY PROBLEM. WE FOUND
2 THAT WE HAD A LITTLE TOO MUCH LOAD ON THE INPUT DRIVERS.

3 Q CAN YOU TELL FROM THIS DRAWING WHEN THAT CHANGE
4 WAS MADE?

5 A YES, I BELIEVE SO.
6 NOT FROM THAT DRAWING.

7 Q I'M LOOKING AT 2808.

8 A THE -- THAT DATE (INDICATING).

9 Q YOU'RE POINTING OUT R2803, THIS DATE, HERE
10 (INDICATING)?

11 A YES, RIGHT HERE (INDICATING).

12 Q DECEMBER 8, '7 -- I CAN'T READ THAT. CAN YOU
13 READ THAT? IS THAT '77 OR -- CAN'T BE '79. MUST BE '77.

14 A I BELIEVE IT'S '77.

15 Q MY QUESTION ORIGINALLY WAS DIRECTED TO CHANGES
16 THAT HAD BEEN MADE IN THE LAST YEAR. AND WAS THAT NOT HOW
17 YOU UNDERSTOOD THE QUESTION?

18 A I ASSUMED THAT IT WAS ALL CHANGES.

19 Q OH; OKAY. WELL, I WOULD LIKE TO HAVE YOU IDENTIFY
20 THE DATES, THEN, ON THE CHANGES. THIS CHANGE, THEN, WITH
21 RESPECT TO THE RESISTORS FOR THE ADJUSTABLE PARAMETER MATRIX --
22 THAT WAS THIS CHANGE YOU REFERRED TO OF DECEMBER 8, '77?

23 A YES.

24 Q DO YOU THINK PERHAPS WE COULD TAKE THEM ONE AT
25 A TIME AND GO THROUGH THESE TO GET THE DATES?

26 THE CHANGES THAT YOU HAD GIVEN ME UP TO THE PRESENT
27 TIME -- DO YOU KNOW IF THEY WERE CHANGES THAT WERE MADE DURING
28 THIS LAST YEAR?

2 A THE RESISTOR CHANGE IN A P.O. CIRCUIT AND THE
3 BATTERY CHANGE WE MADE WITHIN THE LAST YEAR. THE PARTS SUB-
4 STITUTIONS COULD BE ANY DATE, INCLUDING WITHIN THE PAST YEAR.

5 Q OKAY. ARE THERE ANY OTHER CHANGES THAT WERE
6 MADE WITHIN THE LAST YEAR THAT --

7 A I'LL HAVE TO GO BACK THROUGH THEM AGAIN.

8 (INTERRUPTION IN THE PROCEEDINGS.)

9 BY MR. KATZ:

10 Q DID YOU FIND ANY OTHER CHANGES?

11 A NO.

12 Q REFERRING SPECIFICALLY TO DRAWING PBOO-X101, R2803,
13 THERE'S A REVISION 'D' THAT SAYS, "ADDED 031" -- IS THAT REQUIRE-
14 MENTS?

15 A REQUIREMENTS.

16 Q "AFFECTIVITY, NON" -- AND THAT'S DATED JULY 13, '78,
17 AND JULY 8, '78.

18 A I BELIEVE THAT TO BE THE BATTERY CHANGE.

19 Q WHEN WAS THE BATTERY CHANGE?

20 A SOMEWHERE, THERE SHOULD BE A -- THE DASH 31
21 CONFIGURATION COVERED THE RESISTOR VALUE CHANGES AND THE
22 BATTERY.

23 Q WHAT ARE THESE SHEETS SUCH AS 2804 THROUGH 2806?

24 A LATER REVISIONS TO THE DOCUMENT.

25 Q THESE ARE REVISIONS AFTER YOU RAN OUT OF ROOM --

26 A WELL, THEY WERE LATER THAN THIS (INDICATING).

27 Q LATER THAN THE REVISION BLOCK THAT IS ON THE
28 FACE OF THE DOCUMENT; IS THAT RIGHT?

ARE THESE RESISTOR CHANGES THAT ARE REFERRED TO IN

1 R2804 -- WHERE IT SAYS, "CHANGE R161" --

2 A YES.

3 Q "43K" -- THAT'S A 43,000 OHM RESISTOR?

4 A CORRECT.

5 Q WAS 27K -- WHICH MEANS IT WAS A 27,000 OHM

6 RESISTOR; RIGHT?

7 A YES.

8 Q AND THESE OTHER TWO RESISTOR CHANGES AFTER THAT --

9 WERE THOSE MENTIONED BY YOU AS --

10 A YES, THAT IS THE P.O. CHANGE THAT I REFERRED TO.

11 Q POWER UP?

12 A YES.

13 Q AND CAN YOU TELL FROM THIS DOCUMENT, 2804, WHEN

14 THAT WAS DONE?

15 A THAT WOULD BE THE DATE IT WAS RELEASED (INDICATING).

16 Q NOVEMBER 16, 1978.

17 AND WHO WOULD THAT P.G. RELEASE SIGNATURE BE?

18 DO YOU KNOW?

19 A I DON'T KNOW.

20 Q DO YOU KNOW WHO THIS PERSON IS THAT'S REFERRED

21 TO IN THE "APPROVED BY" BLOCK? THE LAST ONE ON THE LIST?

22 A FRED HOOPER.

23 Q ARE THESE PEOPLE WHO ARE LISTED IN THE "APPROVED
24 BY" BLOCK ALL EMPLOYEES OF ROCKWELL?

25 A YES.

26 Q AND THIS CHANGE WHERE IT SAYS -- ON DOCUMENT

27 R2805 -- "CR38, 1N5987B, WAS 1N703" -- IS THAT A DIODE?

28 A YES.

Q WHEN WAS THIS SUBSTITUTION MADE?

2 A LET ME SEE. WOULD BE THIS YEAR.

3 Q APRIL 5, '79?

4 A YES.

5 Q AND WHAT OCCASIONED THAT CHANGE?

6 A WE CHANGED TO A DIFFERENT VALUE SIGN OR DIODE AND
7 A CLOSER TOLERANCE TO IMPROVE YIELD.

8 Q WHAT DO YOU MEAN BY "YIELD"?

9 A IN THE FACTORY.

10 Q YOU MEAN REDUCE THE NUMBER OF REJECTIONS?

11 A YES.

12 Q LOOKING AT DOCUMENTS R1718 AND R1025, I NOTICE
13 A CHANGE IN CONNECTION WITH AN INPUT TO THE C.P.U. IN R1025.
14 IT SAYS, "P.O. NET."

15 A YES.

16 Q AND THE OTHER ONE, R1718, IT SHOWS A BOX WITH AN
17 ARROW GOING UP TOWARD THE C.P.U. AND ANOTHER ARROW DIRECTED
18 DOWNWARD, AND IT SAYS, "POWER UP CONTROL, C.M.O.S." SOMETHING
19 "ENABLE." IS THAT --

20 A YES.

21 Q IS THAT C.M.O.S. ROM OR RAM?

22 A C.M.O.S. RAM ENABLE.

23 Q AND IS THIS BOX IN R1718 DIFFERENT THAN THIS
24 SYMBOL THAT'S "P.O. NET"?

25 A YES.

26 Q WHAT IS THE DIFFERENCE THAT IS SUPPOSED TO BE
27 REFLECTED BY THE CHANGE IN THE --

28 A WELL, IT'S IN THE FUNCTION. I REVISED THE POWER

UP CIRCUIT TO ALSO ENABLE THE RAM.

2 Q AND WHAT RAM ARE YOU TALKING ABOUT?

3 A THE -- WHAT I REFER TO AS THE BOOKKEEPING RAM.

4 Q IS THAT SHOWN ANYWHERE ON THIS BLOCK DIAGRAM?

5 A YES, IT'S THIS BLOCK HERE (INDICATING).

6 Q THE BLOCK THAT'S IN THAT BROKEN LINE? IS IT THIS
7 ONE HERE (INDICATING)? IT SAYS, "CMOS RAM" INSIDE THE
8 BROKEN LINE RECTANGLE.

9 A YES.

10 Q AND THIS IS THE ENABLE SIGNAL THAT COMES IN?

11 A YES.

12 Q SO THAT'S ANOTHER DIFFERENCE THAT WE HADN'T
13 MENTIONED BEFORE BETWEEN THE -- IN THE UPDATED VERSION; IS
14 THAT RIGHT?

15 A YES.

16 Q WHAT WAS THE PURPOSE OF PREPARING THE DIAGRAMS,
17 R1718, AND R1025?

18 A ILLUSTRATIVE. MAINLY FOR PEOPLE WHO DID NOT UNDER-
19 STAND THE CONTROL SYSTEM AS MARKETING, PRODUCTION, OTHER PEOPLE
20 WHO WERE NOT CLOSELY ASSOCIATED WITH THE PROGRAM.

21 Q AND WERE THEY EVER USED FOR THAT PURPOSE AS
22 FAR AS YOU KNOW?

23 A I DON'T KNOW.

24 Q IN THE DOCUMENT R2841, I SEE A REVISION BLOCK
25 THAT REFERS TO AN ITEM DATED MARCH 24, '78. AND WHAT DOES
26 THAT REFER TO? IT SAYS, "ADDED G.N." --

27 A GENERAL NOTE AND CODE.

28 Q WHAT IS THAT?

A THERE (INDICATING).

2 Q WHAT IS IT REFERRING TO? THIS WHOLE NOTE?

3 A NO, THIS SPECIFIC NOTE (INDICATING).

4 Q DOES THAT REFER TO ANY CHANGE THAT WAS MADE?

5 A IT LOOKS LIKE IT REFERS TO THE VALUE OF BREAKDOWN
6 VOLTAGE ON THE CAPACITOR.

7 Q NOW, IN THE GOTTLIEB PINBALL CONTROLLERS, THERE
8 WERE CHIPS OR -- MOS/LSI DEVICES --

9 A DEVICES.

10 Q -- THAT WERE PROMS; ISN'T THAT RIGHT? OR CON-
11 TAINED -- I SHOULD SAY, THEY CONTAINED PROMS?

12 A YES.

13 Q AND THOSE WERE PROGRAMMED; WERE THEY NOT?

14 A YES.

15 Q AT ROCKWELL INTERNATIONAL?

16 A YES.

17 Q AND HOW WERE THEY PROGRAMMED?

18 MR. HARDING: YOU MEAN PHYSICALLY?

19 MR. KATZ: YES.

20 THE WITNESS: I'M NOT FAMILIAR WITH THE PROCESS,
21 ITSELF. I DON'T KNOW.

22 BY MR. KATZ:

23 Q DO YOU KNOW WHO HANDLED THE PROGRAM?

24 A YES.

25 Q WHO IS THAT?

26 A DON HARMER.

27 Q AND HOW DID DON HARMER RECEIVE THE PROGRAM THAT
28 WAS TO BE PROGRAMMED INTO THE PROM?

MR. HARDING: TO THE EXTENT THAT YOU KNOW.

2 BY MR. KATZ:

3 Q YES.

4 A WE WERE GIVEN A GAME DESCRIPTION.

5 Q BY GOTTLIEB?

6 A YES.

7 Q AND IN WHAT FORM? WAS THAT WRITTEN OR VERBAL?

8 A WRITTEN.

9 Q WRITTEN?

10 AND WAS THAT THE DETAILED DESCRIPTION OF HOW A
11 PARTICULAR GAME WAS TO PLAY?

12 A YES.

13 Q AND WAS THERE ANY PROGRAM THAT WOULD BE COMMONLY
14 USED FOR ALL OF THE GOTTLIEB PINBALL CONTROLLERS?

15 A YES. THE PROGRAM MEMORY.

16 Q THE PROGRAM MEMORY.

17 AND DID THAT PROGRAM COME FROM GOTTLIEB?

18 A NO.

19 Q THAT WAS PREPARED BY ROCKWELL?

20 A YES.

21 Q WAS THAT BASED ALSO ON DESCRIPTIONS OF THE GAME
22 PROVIDED BY GOTTLIEB?

23 A YES.

24 Q IS THERE A NAME FOR THAT KIND OF A PROGRAM OR
25 PROGRAM MEMORY?

26 A WELL, IT'S THE ROM.

27 Q IS IT NECESSARY TO HAVE A DIFFERENT PROGRAM IN
28 THE ROM FOR DIFFERENT PINBALL GAMES?

A NO.

Q IS THERE ANY CHANGE IN THE PROGRAM WHEN IT'S DESIRED TO PRODUCE PINBALL CONTROLLERS FOR A DIFFERENT PINBALL GAME THAN ONE THAT HAD PERHAPS BEEN PREVIOUSLY USED?

MR. HARDING: I'M GOING TO OBJECT TO THE QUESTION. WHAT DO YOU MEAN BY "PINBALL GAMES"?

MR. KATZ: I'M TALKING ABOUT A DIFFERENT PINBALL GAME; FOR EXAMPLE, A COUNTDOWN OR A CHARLIE'S ANGELS OR SOLAR RIDE -- ARE YOU FAMILIAR WITH DIFFERENT GOTTlieb PINBALL GAMES?

MR. HARDING: TALKING ABOUT MODELS, NOW? DIFFERENT PINBALL GAME MODELS?

MR. KATZ: IF YOU PREFER TO USE THAT TERM, THAT'S FINE. PINBALL GAME MODELS.

THE WITNESS: WHAT WAS THE QUESTION?

BY MR. KATZ:

Q IS IT NECESSARY TO CHANGE THE PROGRAM THAT IS USED IN THE GOTTlieb PINBALL CONTROLLER FOR DIFFERENT GOTTlieb PINBALL GAME MODELS?

MR. HARDING: TO THE EXTENT THAT YOU KNOW, YOU MAY ANSWER.

THE WITNESS: I DON'T UNDERSTAND THE QUESTION. I DON'T KNOW WHAT HE MEANS BY A "PROGRAM."

BY MR. KATZ:

Q WHAT DO YOU MEAN WHEN YOU USE THE TERM "PROGRAM"? WE'VE BEEN USING IT.

MR. HARDING: LET'S GO BACK AND FIND WHERE THE WITNESS USED IT -- THE WORD "PROGRAM."

///

BY MR. KATZ:

2 Q WHAT IS IT ABOUT MY USE OF THE TERM "PROGRAM"
3 WHICH YOU DON'T UNDERSTAND?

4 A I DON'T KNOW WHETHER YOU'RE REFERRING TO THE
5 ROMS OR -- JUST WHAT.

6 Q WELL, ARE THERE OTHER PROGRAMS -- IS THERE A
7 PROGRAM IN THE ROM? IN THE GOTTLIEB PINBALL CONTROLLER? ARE
8 THOSE PROGRAMMED?

9 A YES.

10 Q IS THERE A NAME FOR THAT TYPE OF PROGRAM?

11 A WELL, IT'S CALLED PROGRAM MEMORY. IT'S A PERMANENT
12 MEMORY AS DISTINGUISHED FROM RAM, WHICH IS READILY ACCESSIBLE,
13 AND YOU CAN ALTER IT.

14 Q AND HAVE YOU EVER HEARD OF A PROGRAM -- FOR
15 INSTANCE, A PERSONALITY PROGRAM?

16 A I DON'T RECALL.

17 Q WHAT IS THE FUNCTION OF THE PROGRAM WHICH IS IN
18 THE ROM? IN THE GOTTLIEB PINBALL CONTROLLER.

19 A IT IS A GENERAL CONTROL PROGRAM FOR THE BASIC
20 PINBALL GAME. IT DOES EVERYTHING THAT WE HAVE CONCEIVED A
21 GAME SHOULD DO.

22 Q IS THERE ANY OTHER PROGRAMMING THAT IS DONE IN
23 THE GOTTLIEB PINBALL CONTROLLER OTHER THAN THE PERMANENT
24 PROGRAM MEMORY IN THE ROM?

25 A YES.

26 Q WHAT IS THAT?

27 A IT'S THE GAME PROM.

28 Q AND IS THAT A DIFFERENT DEVICE IN THE GOTTLIEB

1 CONTROLLER?

2 A YES.

3 Q REFERRING TO R1718, COULD YOU SHOW ME WHERE THAT
4 WOULD BE INDICATED?

5 A IT'S REFERRED TO AS "PGOL/PROM."

6 Q AND PGOL -- IS THAT AN ACCRONYM THAT STANDS FOR
7 PINBALL GAME ORIENTED LANGUAGE?

8 A I BELIEVE THAT'S CORRECT.

9 Q AND THIS PROM -- DOES THAT REFER TO WHERE THIS
10 DIAGRAM SAYS "GAME CONTROL MEMORY"?

11 A YES.

12 Q AND PROM -- DOES THAT STAND FOR "PROGRAMMABLE
13 READ ONLY MEMORY"?

14 A YES.

15 Q AND IS THIS ALSO A CMOS/LSI-TYPE OF DEVICE?

16 A NO.

17 Q WHAT IS THIS?

18 A I BELIEVE IT'S BIPOLAR.

19 Q IT'S A BIPOLAR SEMI-CONDUCTOR DEVICE?

20 A YES. ANOTHER FAMILY OF SEMI-CONDUCTORS.

21 Q MANUFACTURED BY ROCKWELL INTERNATIONAL?

22 A NO.

23 Q WHO MANUFACTURES THIS?

24 A (NO AUDIBLE RESPONSE.)

25 Q THE ONES THAT ARE USED IN THE GOTTLIEB CONTROLLER?

26 A I DON'T RECALL. IT'S A STANDARD PROM.

27 Q AND THEY'RE OFF-THE-SHELF-TYPE ITEMS THAT COULD
28 BE PURCHASED?

2 A YES.

3 Q NOW, WHAT IS THE PROGRAM THAT IS PUT INTO THIS
4 PROM -- INTO THE GAME CONTROL MEMORY PROM? WHAT IS THE FUNCTION
5 OF THAT PROGRAM?

6 A IT'S A SIMPLE HIGH-LEVEL PROGRAM THAT IS USED BY
7 THE GAME DESIGNER TO TELL THE CONTROL SYSTEM HOW TO PLAY A
8 PARTICULAR GAME.

9 Q DOES ANYONE AT ROCKWELL DO THIS PROGRAMMING OF
10 THE GAME CONTROL MEMORY PROM FOR THE GOTTLIEB CONTROLLERS?

11 A NO.

12 Q WHERE IS THIS DONE?

13 A AT GOTTLIEB.

14 Q IS IT TRUE THAT WHEN THE GOTTLIEB PINBALL GAME
15 CONTROL BOARDS ARE SHIPPED OUT OF ROCKWELL TO GOTTLIEB, THE
16 PROM -- THAT IS, THE GAME CONTROL MEMORY PROM -- HAS NOT BEEN
17 PROGRAMMED FOR ANY PARTICULAR GAME?

18 A THAT'S CORRECT.

19 Q AND SO THESE DEVICES AT THAT POINT, WHEN THEY'RE
20 SHIPPED, ARE NOT YET SUITABLE, AS IS, TO BE USED IN ANY
21 PARTICULAR PINBALL GAME?

22 A WELL, WE DON'T INSTALL THE PART.

23 Q YOU DON'T EVEN INSTALL, YOU SAY, THIS GAME
24 CONTROL MEMORY PROM?

25 A NO.

26 Q IS THAT INSTALLED AT GOTTLIEB AS FAR AS YOU KNOW?

27 A YES.

28 Q IS THERE A SOCKET OR A RECEPTACLE IN THE GOTTLIEB
CONTROL -- PINBALL CONTROL SYSTEMS BOARDS THAT YOU SUPPLY THAT

IS ADAPTED TO RECEIVE THIS PROM?

2 A YES.

3 Q AND DO YOU SUPPLY THE PROMS, THEMSELVES, TO
4 GOTTLIEB?

5 A NO.

6 Q AS FAR AS YOU KNOW, THEY PURCHASE IT FROM SOME
7 OTHER ENTITY; IS THAT IT?

8 A YES.

9 Q ARE THERE ANY OTHER DEVICES THAT ARE SHOWN IN
10 THE BLOCK DIAGRAM GAME CONTROL SYSTEM OF R1718 THAT YOU DO
11 NOT INCLUDE WITH THE GOTTLIEB CONTROL SYSTEM BOARD THAT YOU
12 SELL TO GOTTLIEB?

13 A YES.

14 Q WHAT ARE THEY?

15 A WELL, I SHOW THE LAMP AND SOLENOID INTERFACE,
16 AND ACTUALLY, OUR SYSTEM BREAKS AT THIS POINT (INDICATING).

17 Q AT THE CONNECTOR ADJACENT TO THE LAMP WHICH IS
18 SHOWN -- THE LAMP BEING SHOWN ON THE DOTTED LINE?

19 A YES.

20 Q AND AT THE CONNECTOR ADJACENT THE SOLENOID AND
21 DIODE COMBINATION.

22 ANYTHING ELSE?

23 A NO.

24 Q DO YOU KNOW IF THERE HAVE BEEN ANY PROGRAM
25 CHANGES DURING THE LAST YEAR IN THE BASIC PROGRAM? THAT IS,
26 IN THE PROGRAM MEMORY ROM?

27 A NO, THERE HAVEN'T BEEN ANY CHANGES AS FAR AS I
28 KNOW.

2 Q REFERRING TO R2838, DRAWING NUMBER PB00-X151,
3 THERE'S A REFERENCE TO A DATE ON R2839 WHICH IS CLIPPED TO
4 THE BACK OF IT OF MARCH 14, '79. DO YOU KNOW WHAT THAT CHANGE
5 RELATES TO?

6 A YES. THERE WAS A PROBLEM IN THE SPRAGUE DRIVER
7 PACKAGE.

8 Q THAT'S THIS BLOCK, Z2?

9 A AND Z3.

10 Q AND Z3?

11 A THE PACKAGE CONTAINS EIGHT DRIVERS WHICH HAVE
12 COMMON BIAS CIRCUIT. THIS BIAS CIRCUIT WASN'T WORKING RIGHT,
13 SO WE IMPLEMENTED A RESISTOR CHANGE TO CORRECT THE PROBLEM
14 UNTIL WE COULD GET THE PARTS CHANGED BY SPRAGUE.

15 Q AND THOSE WERE FOR OPERATION OF THE FUTABA LAMPS?
16 OR LAMP DRIVER?

17 A DISPLAY PANELS.

18 Q DISPLAY PANELS -- THAT'S FOR THE NUMERICAL DIGIT
19 DISPLAY LAMPS?

20 A YES, THEY'RE SCORE PANELS.

21 MR. KATZ: DO YOU WANT TO TAKE A RECESS?

22 (BRIEF RECESS.)

23 BY MR. KATZ:

24 Q REFERRING TO DOCUMENT R1718, WHICH IS ENTITLED,
25 "BLOCK DIAGRAM GAME CONTROL SYSTEM," WHICH YOU INDICATED WAS
26 A BLOCK DIAGRAM OF THE GOTTLIEB PINBALL CONTROLLER -- WOULD YOU
27 TELL ME WHAT THE BLOCKS A17XX AND A17YY ARE?

28 A WOULD BE ROM RAM I/O DEVICES.

Q DO YOU USE A SLASH BETWEEN?

A YES.

Q AND ARE THOSE COMPONENTS OF ROCKWELL?

A YES.

Q ARE THOSE STANDARD COMPONENTS?

A NO. THE CODES IN THEM MAKE THEM A UNIQUE PART
NUMBER -- PROBABLY ONLY USABLE IN THIS APPLICATION.

Q IN THE PINBALL APPLICATION?

A YES.

MR. HARDING: DON'T SPECULATE.

BY MR. KATZ:

Q IN CONNECTION WITH THIS CASE, YOUR COUNSEL ALSO
PRODUCED A DOCUMENT, R2863, WHICH IS ENTITLED, "DATA SHEET
PARALLEL PROCESSING SYSTEM (PPS-4) MICROCOMPUTER."

I WOULD ASK YOU IF YOU'VE EVER SEEN THIS DOCUMENT
BEFORE?

A YES.

Q WHAT IS THAT DOCUMENT?

A IT'S ONE OF OUR DOCUMENTS PERTAINING TO A DEVICE
FAMILY.

Q WHAT IS THE DEVICE FAMILY?

A PPS-4.

Q AND THIS LIST UNDER PPS-4 -- BASIC DEVICES -- ARE
THOSE THE DEVICES IN THAT FAMILY?

A YES.

Q ARE THERE ANY OTHERS THAT AREN'T LISTED?

A I DON'T KNOW.

Q ARE ANY OF THESE DEVICES THAT DEVICE WHICH IS

MR. HARDING: COUNSELOR, ARE YOU TALKING ABOUT NOW?

I NOTICE THE DOCUMENT IS DATED 1974. IS YOUR LINE OF QUESTIONING DIRECTED TO TODAY?

MR. KATZ: WELL, WHAT WAS THE QUESTION? I THOUGHT IT WAS SPECIFIC WITH RESPECT TO -- NO.

BY MR. KATZ:

Q ARE ANY OF THOSE DEVICES THESE DEVICES A17XX AND A17YY?

A NO.

Q I SHOW YOU ANOTHER DOCUMENT WHICH HAS BEEN PRODUCED BY ROCKWELL'S COUNSEL, UNDER PRODUCTION NUMBER R2491, WHICH IS ENTITLED, "PARALLEL PROCESSING SYSTEM (PPS) PRODUCT BULLETIN 1," AND FURTHER SUBTITLED, "PPS-4/2, TWO-CHIP MICROCOMPUTER SYSTEM," AND ASK IF YOU'RE FAMILIAR WITH THAT DOCUMENT?

A YES.

Q I NOTICE ON THE FRONT, IT LOOKS LIKE SOMEBODY PUT "C.P.U. DEVICE 11660" IN SCRIPT. AND UNDER IT, SOMEONE WROTE, "A17 ... DEVICE" WITH AN "S" IN PARENTHESES AFTER IT, "EQUALS TWO."

IS THAT YOUR HANDWRITING?

A I BELIEVE SO, YES.

Q AND WHAT WAS THE PURPOSE OF WRITING THOSE ITEMS ON THAT SHEET?

A I DON'T RECALL.

Q IS THAT DEVICE A17 -- IS THAT THE DEVICE THAT'S REFERRED TO IN THE BLOCK DIAGRAM OF R1718 AS A17XX AND A17YY?

A YES.

Q DO YOU KNOW IF THERE IS A DATA SHEET OR SPECIFICATION ON THAT DEVICE AVAILABLE FROM ROCKWELL INTERNATIONAL?

A I DON'T KNOW.

MR. HARDING: I CAN ANSWER THAT. I'M SURE THERE IS. I ASSUME THAT THERE WOULD HAVE BEEN ONE IN THE PRODUCTION -- THE DOCUMENT PRODUCTION.

MR. SCHNAYER: I COULDN'T FIND ONE.

MR. KATZ: MR. SCHNAYER INDICATED HE COULDN'T FIND IT. THAT'S WHY I RAISED IT.

THE WITNESS: WELL, THERE IS A GENERAL SPECIFICATION. I BELIEVE THIS PART IS COVERED IN THAT -- THAT ELECTRICAL SPEC (INDICATING).

BY MR. KATZ:

Q IS IT REFERRED TO AT ALL IN R2491 OTHER THAN IN YOUR HANDWRITING ON THE FRONT PAGE?

A YES, IT'S RIGHT HERE (INDICATING).

MR. HARDING: IF I MAY SAY SOMETHING, I BELIEVE IT'S ALSO BEEN IDENTIFIED, TO DATE, IN LITIGATION AS G015.

MR. KATZ: WHAT'S THAT G015? IS THAT A DOCUMENT PRODUCTION NUMBER?

MR. HARDING: YES.

MR. SCHNAYER: SAY THAT AGAIN. I DIDN'T --

MR. HARDING: G015.

MR. SCHNAYER: WAS THAT THE SPECIFICATION --

MR. HARDING: THAT WAS THE DOCUMENT PRODUCTION NUMBER. AND I BELIEVE --

MR. KATZ: OF GOTTLIEB.

MR. HARDING: AND I BELIEVE "G" DESIGNATES GOTTLIEB.

OFF THE RECORD.

(DISCUSSION OFF THE RECORD.)

2
3 BY MR. KATZ:

4 Q MR. FOOTH, WHAT IS THE SIGNIFICANCE OF THE "XX"
5 AND "YY" AFTER --

6 A THE NUMBER HAD NOT BEEN ASSIGNED AT THAT POINT
7 IN TIME. IT'S --

8 Q WHAT DO YOU MEAN? WHAT NUMBER?

9 A WHEN THE ROM CODES ARE TURNED IN FOR PRODUCTION,
10 A NUMBER IS ASSIGNED TO THAT PARTICULAR PART, AND IT IS
11 PROGRAMMED IN THE PROCESS OF MANUFACTURE.

12 Q SO, WHEN THE ROM CODE, FOR EXAMPLE, WAS BURNED
13 IN --

14 IS THAT THE CORRECT TERM?

15 A YES.

16 Q -- INTO A17XX, THEN THAT BECAME A PARTICULAR
17 PART; RIGHT?

18 A YES.

19 Q AND SO IT WAS NOT MERELY AN A17, BUT IT HAD A
20 PARTICULAR CODING WHICH COULD NOT BE CHANGED?

21 A CORRECT.

22 Q AND LIKEWISE, FOR THE A17YY?

23 A TO DISTINGUISH THAT, "X" AND "Y" ARE DIFFERENT
24 PART NUMBERS.

25 Q AND SO IF WE WERE TO LOOK IN THOSE PRODUCTION
26 DRAWINGS THAT WE HAD BEEN LOOKING AT BEFORE, WE SHOULD FIND
27 SOME PARTS THAT CORRESPOND TO THE A17XX AND A17YY, BUT THEY'LL
28 HAVE A DIFFERENT PART NUMBER; IS THAT RIGHT?

A CORRECT.

Q DO YOU REMEMBER WHAT THOSE PART NUMBERS ARE?

A YES. A1752 AND A1753.

Q AND THE PROGRAM BURNED INTO EACH OF THOSE WOULD BE DIFFERENT, RESPECTIVELY; RIGHT? IN OTHER WORDS, THERE'S A DIFFERENT PROGRAM BURNED INTO A1752 AND A1753?

A YES.

Q NOW, REFERRING TO THIS DOCUMENT, R1718, COULD YOU DESCRIBE GENERALLY HOW THIS SYSTEM OPERATES FROM THIS BLOCK DIAGRAM?

DO YOU HAVE A COPY HANDY? AND THEN I COULD STAY ON MY OWN SIDE OF THE TABLE.

A WELL, BASICALLY, WHEN POWER IS APPLIED, THE SYSTEM INTERFACE IS INITIALIZED.

Q HOW IS THAT ACCOMPLISHED?

A BY A RESET SIGNAL THAT SETS UP ALL OF THE I/O'S SO THAT BASICALLY, ALL THE I/O'S ARE IN A RESET CONDITION.

Q IS THAT RESETTING SIGNAL SHOWN ON HERE?

A NO, THIS IS JUST A GENERAL BLOCK DIAGRAM.

Q I UNDERSTAND. I WAS JUST TRYING TO FIGURE OUT WHAT WAS ON, WHAT WASN'T.

AND WHEN YOU SAY, "I/O'S," YOU'RE REFERRING TO G.P.I.O. AT THE TOP; RIGHT?

A YES.

Q AND DOES THAT STAND FOR "GENERAL PURPOSE INPUT OUTPUT DEVICE"?

A I BELIEVE SO.

Q AND DO YOU CONSIDER THE G.P.K.D. AN I/O?

CONTROLLER (INDICATING)?

A. YES.

Q AND WOULD THERE BE A SPECIFICATION ON THOSE PARTICULAR DEVICES?

A THERE WOULD BE A GENERAL ELECTRICAL SPECIFICATION COVERING ALL A17'S.

Q AND THAT WOULD BE ALL?

A YES.

Q OKAY.. THERE WAS A REFERENCE, I BELIEVE, YESTERDAY, TO THE WORK THAT WAS BEING DONE ON A GENERAL INDUSTRIAL CONTROLLER THAT USED THIS GOTTLIEB CONTROL SYSTEM. DO YOU RECALL THE GENERAL TESTIMONY ABOUT THAT? IT WAS TOUCHED ON BRIEFLY.

A I RECALL THAT IT WAS MENTIONED.

Q WOULD THAT INDUSTRIAL CONTROLLER CONTAIN ALSO THE A1752 AND A1753 I/O'S?

A NO.

Q THE SIGNALS THAT WE REFERRED TO -- GETTING BACK TO THE OPERATION OF THE G.P.K.D. -- D.B.S., AND THEN THERE'S ANOTHER ONE AT THE BOTTOM WITH A BAR OVER THE D.B.A.

A YES.

Q ARE THOSE INVERTED SIGNALS?

A YES..

Q WHERE DO THOSE SIGNALS COME FROM IN THE SYSTEM?

A THEY'RE AVAILABLE FROM -- G.P.K.D.

Q OH, WELL, IT'S JUST NOT SHOWN?

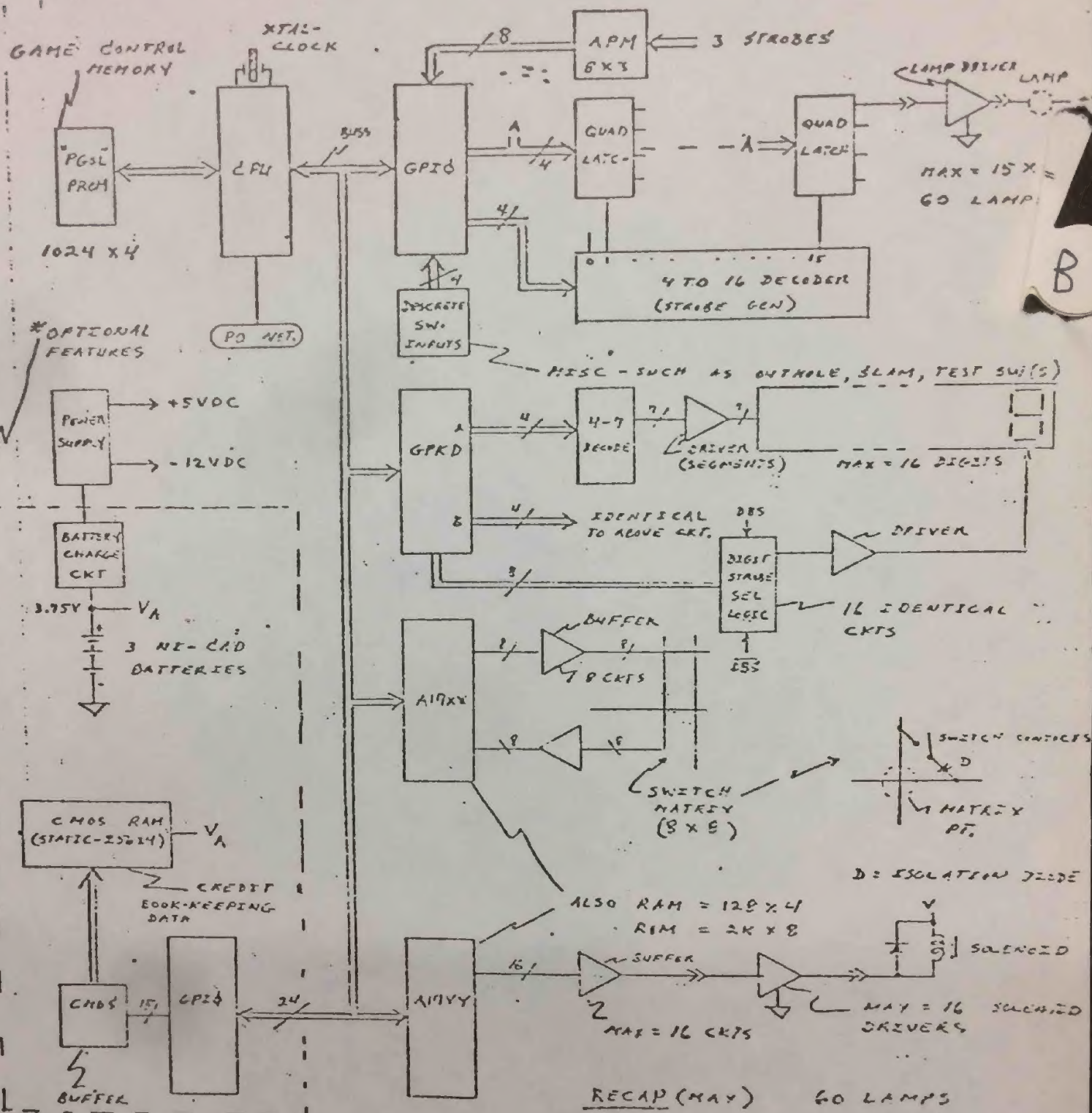
A NOT SHOWN.

--- THIS G.P.K.D. CONTROL OF THE DIGITS CONSIDERED

BLOCK DIAGRAM - GAME CONTROL SYSTEM

1-27-77

gwt



RECAP OPERATING MEMORY (MAX)

4K x 8 ROM
256 x 4 RAM

60 LAMPS
16 35L.

32 DISPLAY DIGITS
64 SWITCHES (MATRIX)
4 MISC SWITCHES

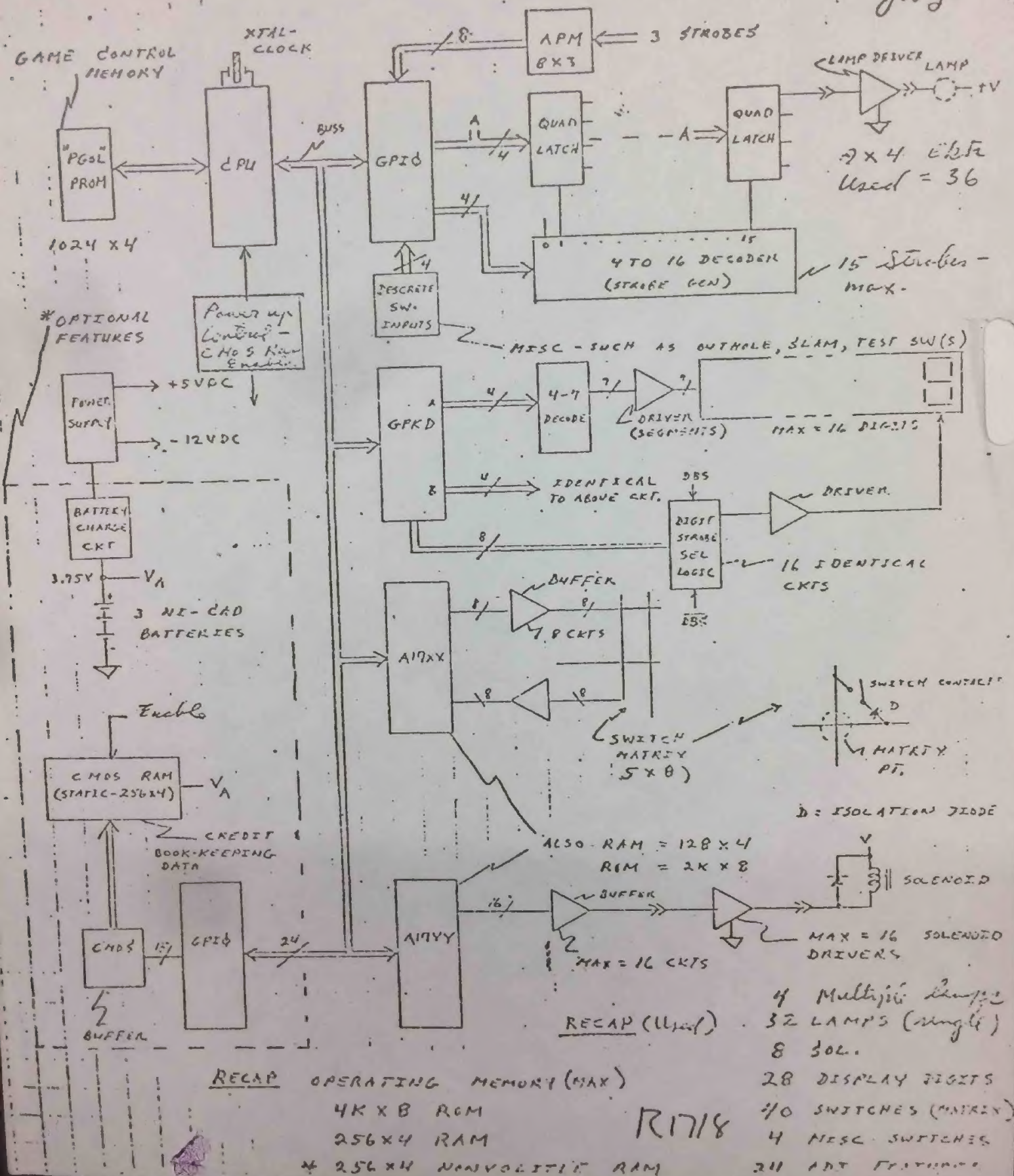
BLOCK DIAGRAM - GAME
CONTROL SYSTEM

1-27-77

JWF

Updated 8-29-78

JWF



IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

BALLY MANUFACTURING CORPORATION,

Plaintiff/Counter-
defendant,

vs.

D. GOTTLIEB & CO., a corporation,
and WILLIAMS ELECTRONICS, INC., a
corporation,

Defendants/Counter-
plaintiffs.

78 C 2246

DEPOSITION of ALVIN J. GOTTLIEB, taken by
the plaintiff/counterdefendant herein, pursuant to notice
and agreement of counsel, before Cynthia Dykins, (being
a disinterested person, not of counsel for, or employed
by any or either of the parties hereto, or interested in
the outcome of said cause), a duly Certified Shorthand
Reporter and Notary Public of the State of Illinois, at
135 South LaSalle Street, Suite 1540, Chicago, Illinois
on Friday, May 18, 1979 commencing at 10:00 a.m.

PRESENT:

FITCH, EVEN, TABIN & LUEDEKA
(135 South LaSalle Street, Suite 900
Chicago, Illinois 60603) by
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appeared on behalf of plaintiff;

Simplify volume product design with single-chip microcomputers

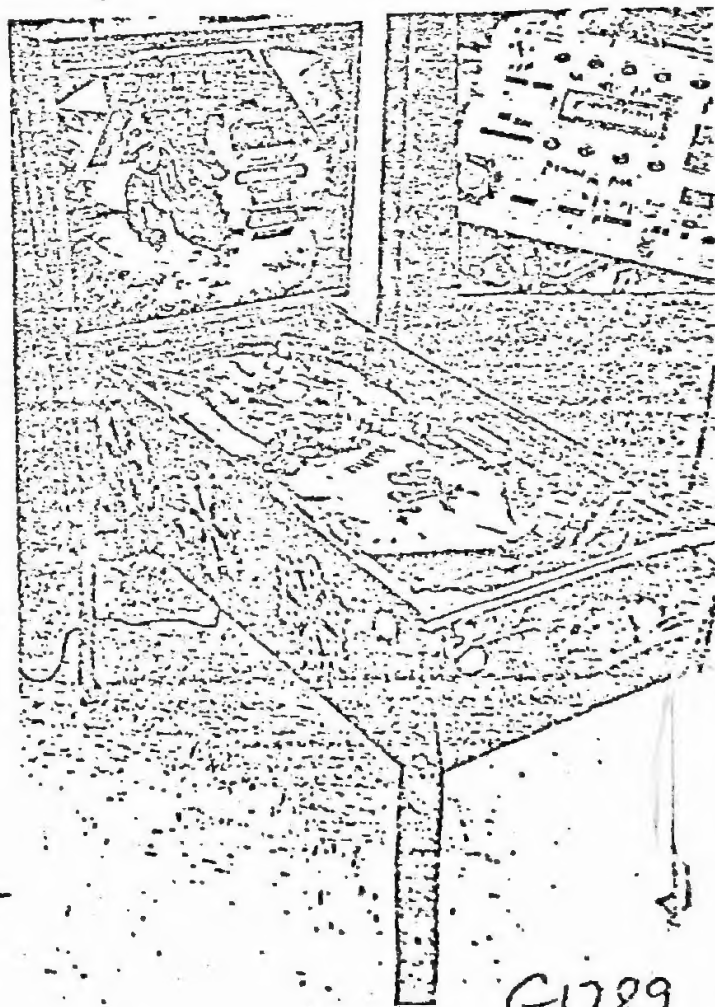
Design and development of a home pinball game illustrates how 1-chip μ C's replace relay logic in high volume, low-cost consumer products.

Bruce W Kinney, Rockwell International

As the \$1 μ C nears reality, more and more product designers in consumer and high-volume industrial markets look to μ C technology to provide the benefits of design flexibility and increased product performance. One-chip, 4-bit PMOS μ C's like Rockwell's PPS-4/1 and TI's TMS1000 now sell for as little as \$2 in some very high-volume (more than 100k) applications; no 8-bit NMOS machines—even the currently available one-chippers—have yet even approached these prices.

Though many designers are thus now considering using 4-bit μ C's in their applications, few of them—even those with computer backgrounds—have had the opportunity to design with these lowest cost PMOS devices. An illustration of such a one-chipper application will therefore prove useful; the one developed here is a prototype for a product line slated for introduction by Brunswick Corp., Skokie, IL. While it of course has specialized features that apply to its own marketplace, its controller's design is sufficiently characteristic of all one-chip μ C applications to serve as a general illustration of their design procedure.

Fig 1—A one-chip μ C replaces all previous electromechanical relay logic and adds new features to this home pinball machine. All electronics, including the fluorescent 7-segment and incandescent displays, mounts on one side of a low-cost pc board (inset).



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